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1935 – 1941



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Philip Cabot

ADDRESSES

1935 - 1941

BY

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CAMBRIDGE

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PREFACE

The addresses here collected belong to a definite period during which the author was deeply concerned over the obvious imbalance between our social and our economic development. He was in close touch with the researches of his colleagues, Mayo, Roethlisberger, Dickson, and T.N. Whitehead, with the cooperation of the Western Electric Company. These gave him a solid, though limited, foundation of observed fact and indicated the lines along which further profitable investigation of the social problems of large industry might proceed. His long association with business operations, his familiarity with the economic aims of business as seen from the point of view of the investor or trustee, and his recent more detached view of business "as she is taught" gave him a broad background. How successfully he used these advantages is for others to decide. If there be found in these addresses repetition — perchance too much — our decision to risk this has been based on the view that in each case the audience was somewhat different and the angle of approach therefore dissimilar. Perhaps some repetition may actually heighten the effect.

Some hundreds of men who heard him "give tongue" have expressed a desire to have the written as a reminder of the spoken word. We are by no means clear that he would have

approved, but we *are* clear that he would not have forbidden us to comply with the requests of his friends.

Only those addresses have been reproduced here of which we had either a printed copy or a manuscript carefully revised by him. We have made no alterations in the text, but have "let her go as she lays."

Our thanks are due to the *Alumni Bulletin* of the Harvard Business School, the *Journal of Accountancy*, the *Juniata College Bulletin*, the National Dry Goods Association, and the American Retail Federation for permission to reproduce addresses printed by them.

GERTRUDE G. CABOT
HUGH CABOT

CAMBRIDGE, MASSACHUSETTS
September 15, 1942

P. C.

To print a volume of occasional addresses after a man's death is a hazardous business — hazardous because such addresses are necessarily removed from their setting and, unless they are of wide general interest, they may be largely meaningless. Against this may be placed the natural desire to preserve in somewhat permanent form evidence of the thinking and philosophy of one we loved and who has gone to a world in which we cannot communicate with him. This is, on the whole, an amiable weakness and we have resolved the dilemma in our favor — perhaps following the rule that all ties are decided in favor of the runner.

But we think that the value of these papers may be somewhat enhanced by a brief sketch suggesting how he “got that way.”

These addresses are shot through with evidence of his profound belief that we live in a world governed by the Laws of Nature — or the Laws of God. They show a more than average familiarity with the Old and the New Testaments and could only have been written by a man of profound religious conviction. They show imagination, knowledge of men, boldness, judgment, and, withal, humility. These are, for the most part, acquired characteristics and can be but a result of the life he had led and the use he had made of the

successes and failures, the strains and stresses, the joys and sufferings through which he had passed. If there be found here evidence of wisdom, it can only be a distillate of the knowledge acquired in a life lived boldly and fearlessly and the ingredients selected and mixed with a cunning hand.

He came early in contact with the forces of Nature when at fourteen he began spending his summers in the Northern Adirondacks, then a reasonably wild country. The illness of an older brother took the family into camp for five summers and provided opportunity to see Nature unencumbered by the trappings of civilization. This opportunity which he grasped with both hands — as he was to grasp so many others — led him through Maine, New Brunswick, Quebec, Northern Ontario, The Labrador, and, to a lesser extent, the country north of Lake Superior and the Rocky Mountains. He became a capable woodsman, learned to “live on the country,” to get out of any scrape he was “fool enough to get himself into,” and to obey rather than to quarrel with the Laws of Nature. He learned that obedience to the Laws meant safety and comfort and that defiance of the Laws meant death. Nature respects no man and plays no favorites. These lessons were terminated abruptly twenty-seven years later by an illness which dogged his footsteps the rest of his life.

There is no evidence that his formal education at schools and college produced any discoverable effect. In 1894 he entered the office of William Minot, and in the atmosphere of that shrewd, bold, free-trotting individualist he learned something of the rules of the game of business in general and real estate in particular. After some years in the Minot office, he graduated insensibly into work as a trustee and manager of real estate. Quite what turned him into the field of Public Utilities I do not know, but I suspect that he smelt there an opportunity for action by a bold and imaginative person who

knew his way about. The development of electric public utilities involving water power was his life from about 1908–1919, and he was the “guiding spirit” of the power development at Turners Falls with interests up and down the Connecticut River Valley. (See Perry Crafts, p. 192.) He threw all that he had into these ventures and there learned some new lessons in handling men and other inanimate objects. It was during this same period that he was the Boston partner of White, Weld & Company of New York, which gave him close touch with “the market” and fitted nicely with his increasing work as trustee of various estates.

The importance of these years, which should have seen him at the height of his powers, cannot be justly estimated without the knowledge that they were passed under the shadow of two great tragedies which tested the fibre of the creature to the uttermost and altered the whole shape of his future career. His first marriage had broken down, leaving him with the custody of two little girls, when in 1913 he developed severe diabetes, which conditioned his life to the end. For the next ten years he waged a slowly losing battle with a disease which, in severe cases, was never satisfactorily controlled by diet. As his daughters grew up, due regard for their education at school and in life required that they be not handicapped by his busy and harassed life, and they were increasingly away from him — an arrangement which broadened their lives but hastened his conversion into a social hermit. For years he lived almost wholly alone rather indifferently served by hirelings. As his strength failed from insufficient nourishment, courage, will power, and faith took its place. It was at this time, when he was without much physical power but with abundance of time for reading and contemplation, that an interesting heightening of his imagination occurred such as I have seen only in men slowly dying of starvation. He read the Gospels from end to end, not, as some do, to strut up

their failing courage, but in order to find out what truths were there contained. Many is the hour I spent with him listening, spell-bound, to his semi-humorous interpretations of the Bible to explain its application to the modern world. Those ancient sayings came alive under his touch and appeared not only great literature but a sound guide to life in a wholly different world. It was these years which produced his only book, "Except Ye Be Born Again," a volume almost out of character unless its setting be known. To this period belong his little-known efforts to bring the forms of religion into step with contemporary living. Here is to be found the distilling of knowledge, tempered by suffering, into wisdom and the filling of the "storehouse" upon which he drew for the enlightenment of his students during the later years of his adventure in living.

To this man in the shadow of death, living toward the end in 1923 hardly more than a vegetative existence, came Insulin, literally a reprieve — almost a pardon in the death house.

Within a year, under the skillful guidance of his physician, Ben Ragle, his physical powers increased and he began seeking new worlds to conquer. He knew that life is a long passageway in which each door closes behind you and there is no turning back. It was suggested to him — he needed nothing more — that at the Harvard Business School he might find an opportunity to influence the business of the future using his knowledge and experience of the past. Through the wisdom of President Lowell and Dean Donham an opportunity was provided for him as lecturer in Public Utilities (1924–1927), Professor of Public Utilities (1927–1935), Professor of Business Administration (1935–1941).

He had a profound conviction that Business was a Profession and he spent these years expounding this philosophy. He sat at the feet of one of the greatest philosophers of his time, A. N. Whitehead, and imbibed and interpreted his wisdom.

In February, 1934, he had a severe "heart attack" — coronary occlusion to the "Docs" — which still further "cramped his style" and made it impossible for him ever to be sure that he would see another day. But he went forward steadily and fearlessly through the remaining years, immensely aided by his second wife, Gertrude Glidden, whose understanding, devotion, and watchfulness warded off many an impending disaster.

He was not a trained teacher and described himself as "a scab," but he could tell the boys what it was all about in language which they could understand, and they loved him. No better evidence of his comprehension of the ideals of the teacher could be asked for than is contained in the closing sentences of his Juniata Address. Let the man speak for himself.

"In the profession which we have chosen we must have liberty or we cannot teach. But when liberty is granted to us, we are bound by a law intangible as mist, but strong as iron. From it there is no escape. Once enter the portal of this profession and there is no alternative for us but performance. We must teach the truth as we are given the power to see the truth, and the acid test of the sincerity which the law of liberty requires of us is that we should be willing to make the ultimate sacrifice for what we believe. This may seem to be a severe condition; one hardly to be expected of us frail humans. But there is this consolation; good work is its own, and sure, reward. Do your work and you need not care a farthing for any man's opinion. Illuminate for your students some aspect of human life, declare a sham a sham and a fraud a fraud, and the great ones of the earth shall bow down to do you homage. But this will be the least part of your reward. When the end of your life draws near, and you walk alone into the sunset, you may hear on your right hand and on your left the feet in the grass, and perhaps even the voices,

of a younger generation whom you have helped to find the Road of Life. If it shall please God to grant you this mercy, He will have opened for you the door of the only Heaven which mortal man can know.”

H. C.

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GOVERNMENT AND BUSINESS*

ALL of you, I presume, are men of action, and so it is perhaps unnecessary for me to tell you that it is much easier to criticize the work of other men than to do the job yourself. For this reason I shall try to avoid unnecessary criticism, both of our law-makers and of our business men. My purpose is to describe what I see going on about me in those two fields of human endeavor which we call government and business, and to attempt to suggest to you certain general conclusions which I draw from what I see.

I begin with the platitude that both government and business are of immemorial antiquity. Business must be as old as the race, for it is hard to imagine a type of human being who was so completely independent that he could satisfy every need better than anyone else could do it for him; who had no desire to exchange a deer hide, or a wolf skin, for an axe head, or for some help in setting up a deadfall. Government also must be as old as the race, for even our brother the wolf knows that "the strength of the wolf is the pack." In fact, the human imagination breaks down under the effort to conceive a group of people in which both government and business were not important, if not indispensable, factors, and we may safely

* An address delivered before the American Institute of Accountants at Boston, Massachusetts, October 15, 1935.

conclude that both are essential means to the main purpose of human life, namely, the formation and growth of stable and progressive societies.

It would be difficult for me to explain to you, or for you to understand, the nature and the limitations of these two means to this all-important end unless we start with some general notions as to the nature of the end, namely, the progressive human societies to which I have referred. Such societies are the masters of which government and business are the servants. But what do we mean by society? Unfortunately, I cannot undertake to define for you exactly what a society is because I do not know. All that I can offer you are some general notions about the nature of society which I have found useful for myself. Going back to the animal kingdom, the simile of the wolf pack suggests two of the major paths of the evolutionary process by which societies are made. Wolves combine first for protection, and second to increase their economic power — that is, first in order to keep alive in a hostile world, and second to obtain more food with less labor. Man, I suggest to you, has followed the same paths. The tribe serves man as the pack serves the wolf; and many tribes, or nations as we sometimes call them, do not appear to have advanced far beyond the general concepts of the wolf. (See the European news in your morning paper.) The wolf, or the man, driven by the instinct of self-preservation, will combine, and his success will depend on his powers of organization and administration. Although we commonly forget it, success depends on leadership, and leadership depends upon the successful division of the group into at least two groups — the governors and the governed. It is for this reason that both among wolves and among men a certain degree of freedom is essential to success, for neither wolves nor men are born equal, and, if they are free, they will use their freedom to vindicate their inequality and stratify their societies.

Up to this stage of evolution the instincts of animals and of men seem to run parallel and to produce similar results. But societies of this type, while very stable, are not typically human; at this level man has little advantage over the animals. The feature which distinguishes human societies from the societies of animals is spiritual progress, which is the child of intelligence, memory, and imagination. When these are present in adequate intensity, a human society moves forward by establishing an increasing control over the forces of nature and attaining an increasing grasp of the nature of the cosmos. Spiritual progress is the stamp of approval of the Cosmic Intelligence on the societies of men; a fact which seems to have been forgotten by recent generations. It seems that Calvin's doctrine of salvation by work has been over-worked to the point where we assume that material progress and an increase of wealth can be palmed off on the Almighty as a substitute for the growth of the spirit of man. It is needless to remark that the Almighty cannot be deceived.

If we now ask ourselves how well we have succeeded in producing a stable and progressive society in these United States, the answer must be "Not well," even if this answer wounds our self-conceit. During the last half-century, or more, it appears to me that both our economic and our spiritual life have been becoming less, rather than more, stable, and I fear we must admit that such progress as we have made in that period has been toward barbarism rather than toward civilization. Many of you, I fancy, will reject this conclusion. I envy you your optimism and I wish I could achieve it. But realism compels me to say that if we are unable, or unwilling, to make fundamental changes in our general attitude toward life, the future for this nation is very dark. I do not mean to suggest that the intense economic struggle of the last two generations was a futile effort. That is not my belief. But I do mean to suggest that for the present we have gone far enough in that

direction and that we must now turn our energies into other channels.

During the last half-century we have made amazing progress in extending our control over the forces of nature and our understanding of the material world. The attention of the nation has been focused like a burning-glass on these objectives and we have been so absorbed in them that both business and government have forgotten the platitude with which I began, that they are merely the servants of society. As a natural result, society has been ill served, and it has suffered. So far as business is concerned, this is an old story. The politicians have deafened us with their clamor about it for the last three years. But I suggest that this uproar has served — and was perhaps intended — to obscure the fact that government has been just as forgetful as business. In a democratic society like ours it may surprise you if I say that our government — the chosen servant of the people — has been a bad servant. But that is what I believe, and I will devote the time that remains to me to a discussion of the failures of business and of government to serve society well.

Business has been charged, during the last five years, with shocking failures of leadership by all sorts and conditions of men in every part of the country. Even business men themselves have joined in this chorus of condemnation, so that it must be true. I shall not attempt to deny it, but merely to examine its causes in order to explain it. Boisterous condemnation will get you nowhere; you must search out cause and effect before a real remedy can be found.

Broadly summarized, the charge against business men is that, although they were entrusted with the economic welfare of the nation, they failed to develop a national point of view, so that they could not understand the national welfare; that, while as business men they were merely servants of the nation, they have not behaved like servants and did not recognize

their master. I may say at once that I think this charge is true, but my interest does not end at this point — in fact, that is where it begins.

What interests me is to find out whether this failure was due to the natural depravity of the business men or whether these servants had in some cases been given the wrong orders and in others no orders at all. There is all the difference in the world between the two assumptions, because in one case the remedy is to “fire” the servants and in the other to give them proper orders. More households have been upset by the ignorance of the wife than by the natural depravity of the cook.

As my time is limited, I must be brief, and so I state bluntly my belief that much of the alleged failure of our business and industrial leaders has been because the society of which they are the servants has given them the wrong orders or no orders at all. I go further and suggest that it has practically forgotten what orders it gave them and has issued contradictory orders. All of us have seen the tragic comedy of a willing, though perhaps stupid, servant running hither and yon, at the orders of a master who was either ignorant or had lost his head. That, I think, is what has happened to business. Setting aside the cases of individual depravity, which are no more common among business men than among teachers, lawyers, doctors, politicians, or accountants, I believe it can be proved that an overwhelming majority of business men have labored honestly to carry out the orders which they understood they had received from the nation.

Stated in the most general terms, those orders were to design and produce, under the spur of the most intense competition, the time- and labor-saving machinery needed to turn out immense quantities of goods with a minimum amount of labor; to contrive new methods of organization to operate this mass-production machinery and to distribute these masses of goods when made. These orders were not given by the busi-

ness men to themselves, as is commonly supposed. They were given to them by the nation, though of course not in printed form. The orders of a society are implicit, not explicit. For example, we know that practically from the beginning of our history on this continent land has been cheap and labor dear; hence the order to save labor. For almost as long a period we have produced most of what we consumed behind a rapidly rising protective tariff; hence the order demanding fierce internal competition. Although Senator Borah does not know it, our fear of monopoly, exemplified by the anti-trust laws, is the child of our protective tariff. No free-trade country could have developed such a "monopoly phobia." As a result of these and other conditions, such as climate, the wealth of a vacant continent, the rare intelligence of the early settlers, and a peculiar form of government, we have turned our business leaders into a group of specialists of exceptional power each in his separate field. Nowhere else in the world has specialization been carried so far because nowhere else were the conditions for developing it so favorable. This specialization has immense advantages, of which we are the heirs. But for every gain there is a loss, and the time has come to balance the gains and losses. This is a problem for accountants, in which I will make the opening entries.

Accounting is a ruthless business which is no respecter of persons, and so my opening entry records the fact that long ago we set in motion forces which required our business men to specialize as a condition precedent to survival, to say nothing of success, and that at the same time we offered to success fantastic rewards. Now the goods which we ordered have been delivered, namely, a group of successful specialists. They invented, designed, and put in operation the time- and labor-saving machines which are the envy of the western world, and they perfected methods of organization and administration so that these machines could perform their

function, which was mass production. It is not only unreasonable, it is false accounting, to refuse to make the balancing entry: namely, to record the fact that these industrial specialists are not industrial statesmen. But this is what we have done. Having trained and conditioned them as specialists, we hesitate to balance the account and admit that specialists can rarely generalize. We have made them narrow and now we want them broad. Having made them incapable of seeing the nation as a whole, we now demand that they shall think of nothing but the national welfare and always serve it with a single mind. Such a demand is preposterous. The books will not balance.

Doubtless the ideal is magnificent, but doubtless also the demand is unreasonable. No specialists in any field can be masters in many others, and it is certainly rare to find a great specialist with the comprehensive understanding of the whole of life which sound over-all judgments require. I am not suggesting that business men should not now be trained and conditioned to take a broad national view of business. All I say is that they have not been so trained in the past and that the type of leadership which the nation has been demanding from them during the last few years was practically impossible for them. If we want that type of leadership, as I believe we do, we must train them for it. Our business men have shown themselves very apt pupils. They have been turned into specialists in a comparatively brief period. If we now demand men of broader type, the supply to meet that demand can probably be produced.

I am not seeking to excuse the failures of business men, but merely to explain them. I have no desire to condone the sins of individual business men. I merely remind you that all men are sinners. The situation which confronts us needs, and must receive, immediate attention, but the disease is not incurable. In fact, there is reason to believe that there is less cause for

alarm about the problems of business than there is about the problems of government. Having made some suggestions to you about how to balance our account with the business men, I now turn to the question of how to balance our account with the politicians.

I begin by remarking that it is, or should be, an axiom in dealing with the problems of progressive societies that all basic law is merely the slowly crystallized opinion of an overwhelming majority of those to whom it applies. Putting this proposition in another way, we can say that all integrated groups, or societies, presuppose agreement by practically all of their members on all matters touching the life of the group. This rule holds good no matter what the form of the government, for a dictator is just as dependent on "the consent of the governed" as the president of a republic — a fact which was discovered thousands of years ago, when dictatorships were the standard form of government, and is now being re-discovered by some of our friends in Europe who have recently been playing the part of dictators. Anyone who doubts this has only to observe the frantic efforts of Mussolini to convince the Italian people that wrong is right.

It is obvious, however, that this rule applies only to basic or fundamental law. Administrators and legislative bodies are necessary to do the housekeeping for societies, and all goes well so long as they confine themselves to housekeeping. It is only when they attempt to tear down the house or make radical alterations in it that trouble begins. My point is that when fundamental agreement exists, legislation and administration work smoothly, but that when it does not exist, neither will work at all, and the society will disintegrate unless such an agreement can be achieved. A ruthless and powerful governing class may reduce the other members of the group to slavery, but when this condition arises the society has already died. Whatever we should like to believe, we must accept the

fact that a stable government is impossible unless it stands upon the solid foundation of a stable society; and no society can be stable unless an overwhelming majority of its citizens agree upon all its fundamental principles.

I have used the words "opinion," "consent," "agreed," and, in order to avoid misunderstanding, perhaps I should say that as I use them they do not imply any conscious logical or intellectual process. For I do not believe that societies are, or can be, held together exclusively by the use of reason. The fundamental agreements which are necessary to create a society and to keep it alive are essentially non-rational and may never arrive at the "head-piece" except in order to be rationalized and explained.

Holding this view of the nature of society, and of its fundamental law, I am compelled to believe that all basic legislation "must range with it or be pulverized by the recoil." These principles as to the nature of law our forefathers had learned in the hard school of experience. But we seem to have forgotten them, and it is to the forgetfulness of our law-makers and our public administrators that I now turn my attention. Having admitted that business men have often forgotten "what it was all about," I now suggest to you that our law-makers seem to have forgotten what law is and what law can do.

Perhaps I can best illustrate what I mean by a few examples with which you are all familiar. After the Civil War we passed the Fourteenth and Fifteenth Amendments in order to guarantee the negroes against racial discrimination. But, so far as the negroes are concerned, these amendments are a dead letter, nullified by the overwhelming emotional reaction of the white population of the Southern States. The Fifteenth is particularly illuminating on this point. It provides in substance that neither the United States nor any state shall abridge the right of negroes to vote, and that Con-

gress shall have power to enforce these rights. But Congress never had that power in fact, and it has been forced to sit still while many of the negroes were practically disfranchised.

The case of the Prohibition Amendment is another illustration. This amendment and the Volstead Act were never law. While it is probable that at the outset they had the support of a majority of the voters of the nation, it became clear within a comparatively short time that people would not stand for national prohibition, so that the Volstead Act could not be enforced. Before this amendment was repealed, incalculable damage had been done to the nation by weakening its respect for law and by creating a new class of bandits of great wealth to prey upon the community.

My proposition that our governors and law-makers have forgotten the limitations which the nature of society has placed upon the scope of their activities is well illustrated by an example from the immediate past, during the very period when the politicians were loudest in their condemnation of business men. I cite it in order to suggest to you that this is just another "case of the pot calling the kettle black."

One of the first acts of the Roosevelt Administration was to draft and push through Congress as rapidly as possible the National Industrial Recovery Act, which was intended to produce a rapid and fundamental change in the social and industrial life of the nation. At the outset this legislation seemed to have every chance of success. It was fathered by a president elected by an overwhelming national majority, supported by many of our most prominent industrial leaders, and had behind it the whole weight and power of organized labor. But it was a ghastly failure. Within a year of its passage, the whole administrative structure — called the "National Recovery Administration" — had begun to crumble because the nation had declared in unmistakable terms that this piece of legislation was not law. Within two years of its passage, the whole

structure was demolished by a sweeping decision of the Supreme Court, and one can hardly avoid the impression that the unanimity of the judges in the so-called "chicken case," in which they went far out of their way to expound principles of constitutional law which they need not have considered, was due to the fact that the case had already been decided at the bar of public opinion. What the Supreme Court really did in this case was to ratify and explain a decision which the nation had previously made. There can be no doubt, I think, that a great body of intelligent opinion in the United States favored the principles embodied in the National Industrial Recovery Act; it may even have been the logical solution of some of our industrial problems. But it was rejected and nullified by that invisible group called "the middle class" which seems to hold in its hands the destiny of the nation. We have here a remarkable example of the fact that neither intellect nor logic can make fundamental law.

Fundamental law, I repeat, must embody the crystallized and settled beliefs of the whole community. If it does not, it is not law and will not be obeyed. The failure of our law-makers to grasp this point is illustrated every time the legislature meets in any state in the Union. Every year statutes are passed which do not have the support of public opinion necessary to make them law. No statute is law without the consent of the governed, and all legislation passed in response to the demands of pressure groups falls within this category. Such legislation does no good to the community as a whole and may do great harm.

Now, please do not misunderstand me. Although I believe that our governors and law-makers have done great damage by hasty and misguided action, I do not presume to judge them. They have acted in good faith, but often in an ignorant, and sometimes in a frivolous, manner, and they have often climbed to positions of great power without an adequate un-

derstanding of the nature of their duties. I make this entry on one side of the ledger, and as a balancing item I record that the failures of our law-makers and administrators have more often been the failures of democracy than the failures of individuals. As in the case of business, I am disposed to believe that our law-makers are the victims of circumstance rather than of their own willful folly. If we want to make things different and make them better, we must change the circumstances, for we cannot change the men.

But in order to change the circumstances, we need not embark upon new or radical courses; quite the reverse. What we need is to understand and to obey the laws of nature which govern societies and to recall certain simple truths which are embedded in their structure. These are the truths which I stated at the outset; namely, (1) that business and government are both as old as the race; (2) that both are servants of society; (3) and that each serves society in a different field. When either of these servants tries to perform the function of the other, we have the spectacle of a whale trying to climb a tree. I am aware that all socialists, communists, and fascists deny the fundamental thesis upon which I stand, but that does not greatly disturb me because I believe they are wrong. They have failed, I think, to grasp the fundamental laws of nature by which societies are made and can be destroyed. They have been misled by logic and clever reasoning and have forgotten that societies are not the children of reason and cannot be controlled by logic.

The proposition that both government and business are servants of one master, few will deny in theory, although most of us disregard it in practice. But the proposition that neither business nor government can successfully perform the functions of the other is highly controversial; many deny it in theory and almost everyone in practice. For nearly a century we have witnessed the attempts of business to dominate the

government and actually to assume some of the functions of sovereignty. While these attempts have sometimes attained a short-lived success, they have all failed in the long run, with great damage to business, to the individuals who led these raids, and to the nation. In fact, most of the popular indignation which always comes to a head in periods of depression is due to these departures of business from the field in which it belongs. These two features, the temporary success by which individuals have often obtained great wealth and the ultimate failure, with the popular wrath which accompanies it, commonly get all the attention of the public. We tend to assume that this is the whole story. But it is less than half of it. The unearned wealth of private adventurers is taken from a relatively small number of persons, and the loss, disgrace, and public condemnation fall on relatively few shoulders. These are facts which each of you can verify out of his own experience, but neither of these phenomena is of major importance. The important fact is that when business attempts to usurp any of the functions of government, it damages the society of which both business and government are the servants. When either of these servants misbehaves, the whole household is upset.

During the last twenty years, and particularly during the last five years, we have witnessed great and increasing advances by government into the field of business. In some cases the advances have been deliberate and open; in others they have been accomplished crab fashion, or even tail first, under the guise of government regulation. But I know of no case in which they have been successful, and there is no prospect, I think, that they will be. In some cases direct government losses have been very large; in some cases the losses have been made good by a forced payment from individuals; and in some cases the losses will have to be paid by future generations. But in all cases, I suggest, the damage to society is the most im-

portant and the most serious, because these ventures of government into business, or business into government, tend to disorganize and to disintegrate our society. When government once becomes involved in economic adventures, there is no point at which it can conveniently call a halt. "One good turn deserves another," and in these cases it often gets two. Rigidities and artificial price structures are created, to which there is no end, short of the final collapse. In private enterprise, where there are many small competitors, the failure of individual concerns is not a serious matter, but we have all had an opportunity to observe that even in private business when the units become large the shock of failure is greatly multiplied. When Baring Brothers & Company failed in 1890, for example, it produced an international panic, and in our own day there are many corporations that have become so large that we do not dare to let them fail. This danger grows to the proportions of a catastrophe when government enters into business, because each step makes the next step seem inevitable, and the time soon comes when retreat is impossible. The thing has grown so big that it must go on growing.

That no government can admit failure is a fact which cannot be denied. Such an admission would be an act of suicide, as our own President, in spite of his immense popularity, has been forced to admit. When Mr. Roosevelt took office he told us that he was going to try some dangerous experiments, but that if any of them failed he would let us know at once and that the experiments would be abandoned. As we all know, several of them have failed, but he has not told us. Perhaps it was just as well, because most of us knew it before he did.

To illustrate my point of what happens when government enters into business, I cite the amusing case of the Agricultural Adjustment Act. This was explicitly an emergency measure designed to assist the producers of certain basic agricultural

commodities. But it has now become a permanent measure, and it begins to appear that there is no assignable limit to its scope. The recent extension of the Act to cover potatoes would be humorous, if it were not tragic. Having forced farmers to reduce their acreage of certain so-called "basic crops" and having recommended them to diversify, the government now finds itself in a position where it must fine them if they do so. Farmers who have reduced their acreage of other crops are now told that if they plant potatoes on the idle land and sell them they will have to go to jail. Of course, legislation of this character is not law. Bootlegging of "spuds" is far simpler than bootlegging of whiskey and will prove more popular. To complete the comedy of errors, it is probable that if the law were enforced, the legitimate potato growers would be ruined, because many families that now buy potatoes would grow their own, and the others would trade with the bootleggers. However, the potato farmers need have no fear, for the law will not be enforced. It is not law in any proper sense.

The areas within which business and government can operate successfully are defined by the law of nature which creates and destroys societies of men. Like other natural laws, this one cannot be completely comprehended by men in their present stage of development so that we cannot tell accurately where the lines between the activities of business and government should be drawn. In the present state of our knowledge, some overlapping is unavoidable, and, to complicate matters further, the functions of these servants of society change from generation to generation as the society itself evolves. From this dilemma there would seem to be only one escape. Both business and government must be taught that they are servants, so that they will never forget it; both must be taught that their master can and will change the sphere of their activities without consulting them; and both must be taught that their most important function is to work together for a common end.

Considering the times in which we live, these principles may appear to be an impossible counsel of perfection. Perhaps that is true, but, if it is, the civilization of which we have been so proud is destined to perish. We must learn these rules and obey them or die. Confronted with this categorical imperative, we may find a way to live. I believe we shall.

My time is up and I ought to sit down, but, having set you face to face with a dilemma of the first magnitude, namely, how to keep your society alive, I feel that I ought at least to hint to you how that result might be achieved. Please observe that I do not say *can*, for we are dealing here with mere guesses. Throughout my address I have repeated my belief that both government and business are the servants of society and that society must direct their work. Of course this statement is an oversimplification which may be so great as to amount to distortion, because social forces operate mainly below the level of consciousness, and the terms "order" and "direct" imply conscious intention. But I hope you will feel that the words and images which I have used are accurate enough for practical purposes, because in the long run the whole body of society must determine, and, to a considerable extent, must direct, the activities of its individual members. For example, I believe, and I ask you to believe, that in this country during the last two generations the intense concentration of individuals on the production of material wealth was determined by the society as a whole. Of course, this determination was influenced by the environment in which our society was placed. We are creatures of our environment, like all the rest of creation, but, as we have now arrived at the point where we can create and dominate our environment, it is not misleading to say that our society determines our activities.

But we must face the fact that this concentration on economic problems has necessarily involved the neglect of other

problems which are certainly of equal, if not of greater, importance. At the head of the list of neglected problems stand education and government, to which we have given relatively small attention, and what little we have given does not appear to me to have been of very high quality. As a result, our system of education is obsolete and the science of government is embryonic. Education today does not deal with reality, and the technique of government administration has lagged far behind the requirements of a modern industrial state. In other words, our concentration on one aspect of human life has produced a distortion which has now become painful; so painful, in fact, that something must be done about it. And something is being done. The agony which we now suffer and the confusion which we now observe are the symptoms of a major shift in the focus of social thought and activity. I believe the attention of our society has already shifted from industry and is now adjusting its focus on education and on government. We shall be able to measure the progress of this adjustment by the migration of men of unusual ability out of industry into the two other fields which I have named. During my life the brains of the nation have been concentrated on industry because our society felt that its major problems were in that field. Today that is no longer true. The nation now believes that its major problems are in the field of education and government.

To the educator and to the statesman, therefore, it will offer the greatest rewards, and we have a right to hope that, once the shift has been achieved, progress in these fields will be rapid. The beginning of this shift, which has already been made, marks the end of one epoch and the opening of a new one. Pray God we have not delayed the step too long.

OUR TIMES AND YOUR FUTURE*

FOLLOWING a time-honored practice, I begin my address with a text taken from the Old Testament which summarizes admirably some of the ideas which I desire to offer for your consideration. Although in these days many seem to be ignorant of the fact, it still remains true that this book is the most complete and the most useful record known to us of the spiritual life of man. My text is taken from the opening paragraphs of the thirty-third chapter of Ezekiel.

Son of man, speak to the children of thy people, and say unto them, When I bring the sword upon a land, if the people of the land take a man of their coasts, and set him for their watchman: If when he seeth the sword come upon the land, he blow the trumpet, and warn the people; Then whosoever heareth the sound of the trumpet, and taketh not warning; if the sword come, and take him away, his blood shall be upon his own head. . . . But if the watchman see the sword come, and blow not the trumpet, and the people be not warned; if the sword come, and take *any* person from among them, . . . his blood will I require at the watchman's hand.

In the dramatic warning expressed in these words there are embedded two truths which are so obvious that we commonly

* Commencement Address, Juniata College, Huntingdon, Pennsylvania, June 1, 1936.

overlook them. The first is that the sole purpose of a warning is to enable men to prepare for future action, and the second that the future is always in the keeping of the young. What I have to say to you, therefore, is primarily addressed to the younger members of my audience, for the future is in their hands.

The day of these Commencement Exercises is one on which every responsible citizen of this nation stands face to face with issues which might well daunt the boldest. For it seems clear to me that the continued survival of our civilization will require more clearness of vision, more steadfastness of purpose, and more readiness to sacrifice the body in order that the soul may live than has been demanded of this people since the outbreak of the Civil War.

Some may be disposed to challenge these sweeping statements on the ground that they exaggerate the dangers which confront us and that they tend to produce panic at a time when constructive action is urgently demanded. That challenge I eagerly accept. Certainly panic is destructive and futile, and certainly constructive action is our most urgent need. But do not deceive yourselves. Today the danger of panic is trivial compared with the dangers of the inertia which is paralyzing the nation. For more than a generation forces have been at work which may well produce the death of our civilization, but the soul of the nation seems to have sunk into such a lethargy that we cannot see the danger. I hazard the guess that during my lifetime few men have seen clearly what was going on, and that the watchmen who should have blown the trumpet and warned the people have conspicuously failed in their duty. Some of our leaders have excused themselves by using these silly phrases about creating panic. Men use these things to cloak their own weakness and, when they are resorted to, society is sunk to a low estate, for the distinguishing mark of men worthy of leadership is that they think for

themselves and speak their minds boldly. Each man must stand firm upon his own conviction, for in the last analysis there is no other place where he can stand. If he leaves that solid ground, he will sink slowly in the quicksands of borrowed or second-hand judgments. It is high time that we threw away our comfortable illusions, and faced the ugly facts.

Perhaps, in order to avoid misunderstanding, I should say at this point that during the last generation the watchmen chosen to warn the people have not been our educational institutions, so that they cannot now be blamed if we find ourselves unprepared.

That the nation as a whole *is* unprepared seems to me too plain for argument. For some years now we have been told by those who should know better that we were passing through an economic crisis. It would be as true to tell a man ill with diphtheria that he was suffering from a sore throat. The fact is that we are passing through a political or social revolution, the crisis of which has not yet been reached. It has been advancing upon us gradually for a long time. We have been grossly negligent, both in thought and in action, and today, if we are honest, we must admit that the continued existence of the system of government handed down to us by our fathers is at stake. The generation of young men and women who hear me speak today will very likely decide whether or not it is to vanish from the earth.

Let me try to make clear my view of the nature of the crisis — what Ezekiel calls the sword — which has come upon the land. It does not come in any of the classic forms. We are not seriously threatened today by any of the three great evils — pestilence, famine, and war — which have always harassed mankind. Pestilence, in the ancient sense of the word, has been conquered by science. Famine has been banished by science and transportation so completely that some people are now plagued with the vision of being choked with abun-

dance. Attack by an external enemy has not threatened this nation for more than a hundred years.

These ancient causes of alarm need not alarm us today; the sword has not come upon the land in any of these forms. The dangers which threaten us are within the gates. We are threatened with destruction by the breaking down of those great fundamental agreements upon which the life of all human societies depends. For the body of a society, like the body of a man, is a unit all parts of which must work in substantial harmony, or the society will die. While science has divided man into innumerable organs and processes, and sociologists have attempted to do the same with societies, the stubborn fact remains that a man or a society is a unit which cannot live in subdivision. Unity is the law of its life.

Who can deny that for at least two generations the essential unity of our body politic has been seriously disturbed? Is it not true that our attention has been so focused upon the production of material wealth that we have refused to listen to the warnings of maladjustments in our social system which have been demanding treatment before irreparable damage to the organism has been done? No honest man can deny that we have had warnings, or that the warnings have gone unheeded. To those who now fear that to speak the truth boldly may produce panic, we must reply that the day for such speaking has been already too long delayed. We see all about us signs of social disintegration of which we know neither the cause nor the cure. That these same signs have appeared before in the early stages of decline of older civilizations seems all but certain, but the historians of the past have, perhaps prudently, refrained from giving us any satisfactory account of them. Under existing conditions, this professional caution is very irritating to us because it appears that the solution of our problem may depend upon the answer to these questions on which history is almost silent. We can easily understand the

anger of Nebuchadnezzar, King of Babylon, and his threat to slay the Chaldeans who refused to interpret for him the dream which he had forgotten, for the parallel is exact except for the fact that most of the historians from whom we would ask these questions have already closed their long record of prudence by dying.

From this dilemma you cannot escape except by your own efforts. You must study the conditions which confront you with the aid of the historical knowledge which you have and, from the facts thus gathered, develop such working hypotheses as you can to aid you in peering into the future. This is in fact the only known method of prophesy. No one can see the present clearly except in the light of the past, but those who look at the present thus will see all that it is given to mortal men to know about the future.

As I have already remarked, signs of social disintegration lie about us on every hand. Within the memory of men now living we have witnessed the decay of the Church; the loosening of the bonds of the family unit; the breakdown of those social conventions on which we have reason to believe that the life of society depends; the degenerating effect of the conflict of alien cultures caused by herding together millions of people of diverse races and cultures at the demand of our mass-production industries. My reference to the decay of religion, to the loosening of the bonds of the family, and to the social disintegration caused by the impact of conflicting cultures is not a preliminary to proposals that we should try to go back to a theocracy, to the patriarchal family system, or to the sort of racial unity toward which Germany is headed. I favor none of these things. My present purpose is merely to point out some of the major problems on which it seems to me important that your generation should concentrate its attention. Ever since the Civil War the attention of the nation has been focused on improved methods of producing material wealth. Amazing

progress has been made, and our standard of living has been raised to a point never before reached. These are great achievements, but they are not the whole of life, and if our civilization is to survive, the rising generation must devote its attention to social and political problems which my generation has neglected.

As I said at the outset, the task which confronts you is enough to daunt the boldest. What must be done is to develop within one generation a body of reasoned literature which will elucidate the new relationships of the individual to the groups which have been created by the new industrial techniques during the last hundred years. This literary structure must be erected practically from foundation to coping-stone, for the changes have been so rapid and so great that the sociological writings of the past have been rendered worthless and indeed mischievous.

I have merely suggested to you some of the most obvious aspects of this problem. It would require no talent to make the situation dramatic. Drama, tragedy, confront you at every turn, but I find it hard to believe that anyone can face an audience of young people standing a-tiptoe on the threshold of life without being filled with hope. To youth, difficulty, danger, even the prospect of death, are powerful stimulants. The danger, if there is one, lies quite upon the other side. It is not the face of danger, but the face of monotony from which young people turn away, and my own experience leads me to believe that they are right.

James Russell Lowell stated this well when he wrote:

The brave makes danger opportunity;
The waverer, paltering with the chance sublime,
Dwarfs it to peril; which shall Hesper be?

I have tried to sketch for you briefly, but without exaggeration, the critical position in which this nation stands today, in

order that you may consider how to apply the immense resources at your command to the solution of our problem. The problem is undeniably difficult, and it may even be true that no civilization in the past has ever found a solution. But that is no reason for despair. No civilization in the past ever had the weapons for attacking the problem which you have at hand today. Whatever the failures of my generation have been, we have left you a nation so rich that no experiment you may wish to try can exhaust its wealth in less than a generation.

It is always a hazardous venture to draw clear distinctions between cause and effect, but the immediate causes of our present difficulties are commonly attributed to the rapid changes in our environment during the last hundred years. These changes — so great and so rapid as almost to beggar description — are mainly the work of science, which has extended our knowledge of the material world and our control over the forces of nature to almost inconceivable proportions. From one point of view we might be inclined to say that science had done us more harm than good because in extending our control over the forces of nature it has put in our hands terrible new powers which it cannot teach us how to use. But this is the argument of the coward or the fool. It is true that science cannot take the place of education. But why should it? From the dawn of history it has been the task of education to train men to make use of their opportunities. The task may be more complicated and more difficult today than it was when the conditions of life were simpler, but the task is still the same. If our civilization succumbs before the problems raised by modern science, the disgrace must fall upon our system of education. The present offers a high challenge to a high calling. Let no one suppose that the educators to whom I refer are only college professors. I desire to include everyone here in the category of educators. I should

place mothers and fathers first in this class, for they are, and must always remain, the principal educators of the race. Many of those who listen to me are, or will be, professional educators, and if any business men happen to have strayed in here, I suggest to them that they also are educators in fact — if not in name — for the successful conduct of any business is in the last analysis a successful experiment in education.

I have already referred to the law of unity which governs the life of man and of societies of men, and I now ask you to consider whether education, which is the foundation upon which all societies and civilizations must rest, is not governed by the same law. What we see in a society is unity growing out of multiplicity in accordance with a cosmic law. Is education governed by this same law? In ancient times it certainly was, but more recently the multiplicity seems to threaten that unity. Note, for example, the complications introduced into the problem which faces professional teachers by the expansion of the field of knowledge during the last century. When this nation was young it was possible for a great scholar not only to establish mastery over the whole of one of the great fields of knowledge, but also to have a fair working acquaintance in several related fields. Today this is totally impossible. He cannot establish mastery over the whole of even one field. If he would be a master today, he must confine himself to a sector — often a small one — of one field alone. Success in teaching, like success in any other sort of creative work, is based on mastery, and science, by expanding the field of knowledge, has thereby narrowed the field in which individual mastery is possible. As the whole area expands, the sector which one man can command is diminished proportionately. Multiplicity may seem to be getting the upper hand.

At first glance, and especially if looked at from the point of view of the teacher, this change looks like a blessing. The

number of alternatives offered to the prospective teacher has been vastly multiplied; among this wealth of opportunities it would be hard if he could not find something to suit him. And when he has made his choice, can he not look forward to a quiet happy life, fenced in the closed circle of his specialty where he can commune in private with the small number of his colleagues who are able to understand what he is talking about? The prospect is most alluring and, particularly in our institutions of higher learning, this view has many disciples. In fact, there is only one serious objection to it, namely, that it overlooks the student. If our educational institutions were established for the benefit of the teachers — as some teachers seem to believe — specialization of this type would solve our problem of education at one blow. But fortunately this is not true; in fact, the truth is exactly opposite. Educational institutions that are not established, and administered, primarily for the benefit of the students are a fraud, and their continued existence is a burden on society. Let us pray for the early demise of all such. Of course, research is essential for the extension of knowledge, but it is not education except for the researcher. It is a mistake to assume that the researcher and the teacher are always, or even commonly, united in the same person. The qualities needed for success in these two fields are different and are rarely found in the same man.

My reason for putting this view so strongly is my profound conviction that “there is only one subject matter of education, and that is Life in all its manifestations.”¹ No matter what the teacher may call his subject, it is, and must be, always the same — namely, some aspect of life. But the specialist immersed in his specialty seeks to avoid the operation of this universal law, because his way of life consists in cutting himself off as completely as possible from his fellow men — in

¹ Whitehead, Alfred North, *The Aims of Education* (New York, The Macmillan Co., 1929), p. 10.

cutting himself off, in fact, from life itself — and thereby from the whole subject matter of Education.

It is not uncommon in dealing with problems of education, or in fact with other problems of human life, to assume that they can be solved by magic; that is, by some ingenious formula which satisfies our craving for certitude, even in those numerous cases where certitude is impossible. But to this problem there is no facile solution, nor in fact any solution at all except to adopt a more serious view of human life and of the responsibilities which it implies. For the dilemma is real and cannot be solved by calling it names. We must have specialists because we must have mastery, and mastery is now impossible without specialization. Clearly, our problem cannot be solved by abolishing the specialist, and, as we must have him, we must learn how to use him.

This problem of specialization, not only in education but in all our other activities, is perhaps the most difficult which you have inherited from my generation. Looked at broadly, I think we may say that specialization, which is multiplicity in action, is a handicap unless it is watched with vigilance and rigorously controlled. For when specialization is begun so young and carried so far that a man loses touch with the broader aspects of human life, his value as a teacher is seriously impaired, if not destroyed. The successful teacher of the young must live, or at least must have lived, in the full tide of human life. He must know at first hand its temptations, its agonies, its fragile joys, its abiding sense of failure. These are strong emotions from which the specialist seeks to protect himself because he thinks they interrupt his work. In this assumption he is no doubt right. The powerful cross-currents of active life undoubtedly disturb the majestic calm of the research worker, and are likely to interrupt the smooth course of his inquiry. But let us not forget that *active life* is the element in which youth lives, and that a man who has succeeded in isolating

himself from it is thereby disqualified from teaching it to others.

I have known a few great teachers in my life. Some of them were great scholars, some of them were not, but all of them plunged into the sea of life and breasted the wild currents with an eagerness closely resembling the joy of battle. The one common characteristic of these men seemed to be their belief in life. They were not religious men in any narrow sense; but the most superficial acquaintance with them would have convinced anyone that they felt the magnetic power of that "immense intelligence" which governs the lives of men.

This, I suggest to you, is the unifying principle which is essential to control the growing multiplicity observable not only in education but in all departments of modern life. The whole field of knowledge having expanded beyond the grasp of any single human mind, you must find some way to grasp the *wholeness* of life while you work on only a trivial part of it. Emerson remarked that "We lie in the lap of an immense intelligence," and if you can attain to that knowledge you have solved your problem; without it you remain nomads wandering in the desert without any settled home. The teacher of the young whose subject is human life must "see life steadily and see it whole," or his learning will turn to ashes in his hands.

This aspect of modern life seems to me of such vital significance to you that I beg your indulgence while I restate it in a somewhat different form. The ancient university of which forty years ago I was the child, and of which I am now the servant, has the word *Veritas* engraved in the center of its shield. The Truth symbolized by this word has been compared by a distinguished man of science to a great block of rough granite at which men chip away generation after generation in the hope that the majestic figure of Truth may ultimately be revealed. It is an inspiring thought for us frail

humans who must recognize the triviality of the contribution which any but the chosen few can make toward the great ideal at which we all aim. For most of us, to have borne a very humble part in this great enterprise is all that we can even dare to hope.

Unfortunately, as things stand today, to many even that hope is denied. Think for a moment how a great statue comes into being. It is born as an image in the mind of some great artist, and when the agony of birth has passed, the artist and his assistants give form to that image by chipping away at a block of granite, or of marble. But unless, and until, the image is clearly seen in the full light of creative genius, the work cannot even be begun. So it must be with the majestic statue of Truth which we, as students and as teachers, are supposed to be slowly chipping out of our block of granite. Unless we can feel that we work standing in the presence of the Master, in whose mind the statue of Truth was first conceived, the block on which we work may well receive a blow from some of us which will ruin it beyond repair.

"In the beginning was the plan and the plan was with God, and the plan was God." This is for me the true meaning of the opening sentence of the Gospel according to John, and unless we believe that there is a plan, and that our lives in this world are a part of it, we can neither learn the meaning of human life nor teach it to others.

I have tried to make clear to you the grounds for my belief that a strong religious faith is an essential unifying force in society today, as it always has been in the past. In fact, it is more essential, because the forces tending toward disintegration are more powerful. But in all educational institutions controlled by government, because of the doctrine of separation of Church and State, no such qualification is now, or ever has been, required. It would be highly improper even to make polite inquiry into this forbidden subject.

Such institutions seem to me to suffer under a handicap, for where the religious emotion is absent in the teacher his students are likely to feel the loss. As faith departs, the teacher's vision of his subject is narrowed and his insight into its finer aspects tends to be obscured by materialism.

Some of our privately endowed institutions also suffer under the same handicap because, having been born in comparatively recent times, they never had a firm religious foundation. But the older institutions — even when, as in the case of Harvard University, the religious foundations *appear* to have melted away — still retain a religious tradition of priceless value. While the outward forms of religious worship may have vanished, the liberty of thought which was a part of the old tradition still remains. How long it will continue to survive, no man can predict.

This melting away of the religious foundations of our educational system is a momentous change of which we cannot see the full effect. Probably it was inevitable; possibly it may be permanent. All that I want to say here is that it seems to me that some damage to our system of higher education has been done. The problem of what, if anything, can be done to repair this damage is beset with difficulties to which no simple answer is possible. I am here only glancing at the problem in order to emphasize the immense advantage of a college like this one which has held firmly to a clear and simple religious faith. Those who are responsible for the selection of the teaching force at this college can apply themselves to their problem with a single mind, and any teacher who is fortunate enough to be selected will have the amazing comfort of knowing that he is joining a brotherhood of religious men. There can be few sources of strength greater than this. Thank God that you have it.

It must certainly be clear to you from what I have said that I believe you stand in the antechamber of great events; on the

threshold of a period of great social change. No time could be more inspiring for men of action, for it enables them to see in vivid contrast the old and the new. I say "men of action" advisedly, for to men who love inaction such times are a plague and may even be a curse. But I regard these times as particularly inspiring for teachers, because of all men of action their action is today the most important. It can hardly be otherwise, for it is their business to teach the young the varied aspects of human life and to initiate them into the deep mysteries of living. Today the position of the teacher is more commanding than it has been during the two or three generations when industry and trade held the center of the stage. Throughout my life, the watchmen to whom Ezekiel referred have been leading industrialists or business men, but in the epoch of our history which is now opening, if our privately endowed institutions of higher education rise to the level which the seriousness of the present crisis demands, we may look to see you choose them as the watchmen of your generation. You have a right to look to them for warning and for guidance. None can be more fortunately situated than this one, withdrawn from the turmoil of metropolitan life and placed close to the heart of Nature — beautiful in all her moods.

Today our teachers — and I use the word in its broadest sense — are our natural leaders, and on their success in leadership the future of the nation may well depend. In such leadership they must be given the greatest freedom, for if their freedom is restricted by legislation, they will inevitably fail. The importance of this condition, though it seems to be generally forgotten by politicians, cannot easily be exaggerated. It was the cornerstone of the Reformation and in this country was written into our fundamental law. So far as the profession of teaching is concerned, it rests upon principles which I have been at some pains to expound to you and one of which I now

repeat. Specialization is essential to success in teaching, but generalization is essential to success in legislation. Into the specialized field of teaching, therefore, where generalization is impossible, legislation must knock before it enters. Each teacher is a law unto himself. He must illuminate his chosen field with the light of his own personality through which must shine the light of the Master whom he serves. If this light is hid under a bushel by legislation or by corporate restriction, all that we can expect to see is a higher power of darkness; and in that darkness the nation may well stumble to its undoing. Lest anyone should suppose that there is any novelty in this demand for freedom, I refer them to a letter written to Erasmus by that capable though self-willed monarch Henry VIII of England in 1512, in which he promised him all the freedom here demanded, and more too, in order to induce him to come as a teacher to the English court.²

We must recognize, however, that teachers who demand such freedom lay themselves at once under a heavy responsibility. If a teacher be granted such freedom, how then must he conduct himself? There are doubtless many ways in which an answer might be framed, but I know of none more complete and none so terse as the admonition in the Epistle of James: "So speak ye, and so do, as they that shall be judged by the law of liberty."³ Great sermons have been preached upon this text, and more of them are urgently needed to expound its full meaning. But reduced to the briefest possible terms this law of liberty is the law of voluntary obedience to the will of a higher power — namely, to the will of God. It is expressed in many Christian texts, such as "The perfect freedom of the children of God," and the phrase in the collect, "O God, whose service is perfect freedom." This is the law by

² Froude, J. A., *Life and Letters of Erasmus* (Lectures Delivered at Oxford, 1893-1894; New York, Charles Scribner's Sons, 1894), pp. 91-92.

³ Chap. 2; 12.

which we shall be judged. Obey that law and no one will dare to interfere with you! Law-makers and administrators will not venture to make rules for you because you will be supported by a power which all of them must obey. But "the perfect law of liberty" will task your powers of self-control and self-discipline to the uttermost. To see how difficult it is to obey the law, look at the world about you and see it broken daily, and almost hourly, by the greatest in the land. Listen to those standing on the heights full in the public eye as they talk to a nation listening in their homes. If judged by the law of liberty, how will these men fare? Read the books pouring from our printing presses, some with the names of university professors attached, and all forced upon us with the satanic ingenuity of national publicity. If judged by the law of liberty, how will these men fare? Read in your daily papers the remarks of industrial leaders, trade-union leaders, and editorial writers. If judged by the law of liberty, how will these men fare? Such questions answer themselves. "The perfect law of liberty" is unknown to these men, or has been forgotten. On occasions when the future of the nation is seriously concerned, and when all those who stand in the public eye should speak with the utmost caution, the reckless talk of these men suggests that they have very little understanding of the responsibilities which their position has imposed upon them. But it is not for us to condemn them; they are rather objects of our pity, because carried away by some temporary excitement, or in eager pursuit of some personal advantage, they have forgotten a fundamental law of human life. But we can learn from them an important lesson, namely this, that in the long run such behavior defeats itself. For there is a law of compensation bedded deep in the structure of the Cosmos which answers once and for all the questions which are asked above. Those who — placed in positions of great power — are granted liberty defeat themselves when they abuse it.

They may be listened to eagerly for a short time, but when the sober common sense of the nation begins to act, they vanish away.

This law, we as teachers — and I include you all in this category — will do well to take to heart. In the profession which we have chosen we must have liberty or we cannot teach. But when liberty is granted to us, we are bound by a law intangible as mist, but strong as iron. From it there is no escape. Once enter the portal of this profession and there is no alternative for us but performance. We must teach the truth as we are given the power to see the truth, and the acid test of the sincerity which the law of liberty requires of us is that we should be willing to make the ultimate sacrifice for what we believe. This may seem to be a severe condition; one hardly to be expected of us frail humans. But there is this consolation: good work is its own, and sure, reward. Do your work, and you need not care a farthing for any man's opinion. Illuminate for your students some aspect of human life, declare a sham a sham and a fraud a fraud, and the great ones of the earth shall bow down to do you homage. But this will be the least part of your reward. When the end of your life draws near, and you walk alone into the sunset, you may hear on your right hand and on your left the feet in the grass, and perhaps even the voices, of a younger generation whom you have helped to find the Road of Life. If it shall please God to grant you this mercy, he will have opened for you the door of the only Heaven which mortal men can know.

THE FUNCTIONS OF THE BUSINESS ADMINISTRATOR *

IT WOULD obviously be impossible for me to describe to you all the functions of the business administrator, and frankly I would not do it if I could, for if I were merely to name them you would probably be bored to death, and, what is worse, I should make confusion worse confounded. All that I shall attempt is to indicate what I believe to be his three major functions at the present time, and let it go at that. In doing this I shall simplify — perhaps some of you may feel that I grossly oversimplify — what I believe to be the most important problem which confronts business men today. But I make no apology, because I believe this is the best way to deal with such problems. For you must have observed that all men of action — including all business men — habitually oversimplify their problems when they approach the point of decision. They do this because they must.

To make my point absolutely — perhaps brutally — clear, I suggest to you that apparent oversimplification is the characteristic method which distinguishes men of action from men of inaction — business men, for example, from teachers. The reason for this is obvious. Men of action simplify their prob-

* Address at Summer Conference Course in Industrial Relations, Princeton University, September 21, 1936.

lems because the human mind is so made that it can only handle a few variables at one time. Every business problem has scores of aspects, all of which are more or less pertinent to its solution, but not all of which can be envisaged and weighed at the time of decision by the man who must decide. Some of these aspects, or variables, must be included and some of them must be excluded. If this is not done, the mind becomes clouded and decision becomes impossible. The quality which distinguishes the man of action from the man of inaction is his ability to select from the welter of possible alternatives or aspects of his problem two, or possibly three, on which he will concentrate his attention.

You need not take my word for this, for if you will refer to your own experience of action, or to your knowledge of other men of action, I think you will agree that this is what goes on. This technique is practiced by all business men — the distinction between the successful and the unsuccessful being that the successful men pick the right variables and the unsuccessful men pick the wrong ones. But please do not misunderstand me. I do not suggest that all the intellectual processes which result in a business decision are confined to two or three aspects of each problem. That is not true. I merely suggest that the conscious reasoning processes which lead to successful action must be kept very simple. Doubtless there are many unconscious, or subconscious, processes involved in such decisions; doubtless business men are profoundly influenced by their whole past experience, much of which they have forgotten; doubtless emotion plays an important part. But my point is that in discussing any problem on which immediate action must be taken the points discussed should be very few and the discussion should be very simple. Otherwise, the result will not be action, or at least not firm and decisive action, but inaction or infirm action.

Tonight I am talking to business men — men who must act

on peril of their lives. Therefore, I simplify and choose for discussion three aspects of my problem. It is highly probable that I may choose the wrong ones, but that is unimportant, because if I can set you thinking about what are the functions of the business administrator today you will easily detect my blunders and correct them.

Most competent observers will agree, I believe, that during the century which closed with the panic of 1929 the business men of this country were the major group to which the nation looked for leadership. During an earlier period the leadership of the nation was in the hands of the ministers, the lawyers, and the doctors, but certainly since the Civil War the leadership of the nation was in the hands of business men until their eclipse about five years ago. This is a striking phenomenon not found, I believe, in any other nation, and we shall do well to ask ourselves how they rose to leadership and why they fell. Following the method which I have advocated, we may reply that they rose to leadership by leading and that they fell because they failed to lead. For, contrary to common belief about democracy, the leaders are not chosen; they choose themselves. They are not ejected from leadership; they eject themselves. The real leaders in a democracy are not elected any more or any less than the chiefs of primitive tribes. In a sense, both are elected; that is, they can only retain their power so long as they do in fact lead. When they fail to lead, they will fall as surely — though perhaps not as precipitately — in a democracy as in a dictatorship. If, therefore, the business men of the country have been deposed from the positions they once held, it is because at some stage they failed in leadership.

Personally, I have no question that our business leaders did fail to lead, in the sense that they failed to see the direction in which the life of the society which we call the United States of America was moving, and failed to adjust themselves to the

rapid changes which have occurred, particularly during the last forty or fifty years. Practically all that I shall say to you tonight is an amplification of this view.

Forty years ago — as I can testify of my own knowledge — it was an axiom that “Business was business,” by which people meant, I suppose, that the whole duty of the business administrator was to promote the economic success of the particular enterprise in which he was engaged. You need not take my word for it that this is what was meant by the phrase “Business is business.” The proofs of it lie about you on every hand. The fierce — not to say ferocious — competition which developed, and was enforced by law, is proof enough. The business man was a gladiator whose hand must defend his head and who could neither give nor expect quarter. If he looked over his shoulder, he might be killed.

That was the situation in this country, say, fifty years ago. What is the situation today? If the phrase “Business is business” means today that the administrator must pursue the immediate economic success of his business with a single mind, then I suggest that the phrase should be restated to read “Business is nonsense.” This is the literal truth, because under present-day conditions if business men concentrate their whole attention on the economic aspects of their business, they will destroy their business and themselves.

If you will bear in mind that business men are merely servants of society, this proposition hardly requires argument, for if they do not serve society faithfully and skillfully they will be discharged. Our modern industrial society is far more complex than it was fifty years ago. The methods of business administration which were then adequate are now inadequate, and if business men are to regain the position of leadership which they once held, they must adjust themselves to modern conditions. Fifty years ago it may well have been true that business men could do their full duty to society by devoting

themselves to its economic problems with a single mind. But that is not true today.

Following the method of simplification which has been suggested, I select three functions of the business administrator which I regard as dominant. They are all so inter-related that it would be difficult to estimate their relative importance. But it is unnecessary, because unless all three functions are steadily pursued business as we know it will not long survive. My proposition is that today the function of the business administrator is threefold; in other words, that he must deal with problems which fall into three categories:

- (1) Economic
- (2) Social
- (3) Political

There is no clear line of demarcation between them, but for purposes of discussion I must treat them separately.

(1) *The Economic Problems.* These are the problems which in the last generation were called "business," the problems relating to the production and distribution of goods and services in such a way that the economic process can continue to go on. This implies the existence, or the creation, of markets in which the goods can be sold at a profit, and I ask you to note carefully that this is not only an economic but a social problem. Many people seem to suppose that the whole function of profit is to induce individuals to do creative work in order that they may profit by it. But, in my judgment, this view is lopsided. We talk of the profit motive as if only individuals were to be moved, but in fact the most important function of profit is to move the society as a whole. Without profit, our world would become static — that is, dead — because it requires very large profits to offset the losses which necessarily result from every change in our material environment. Every important scientific discovery, for example,

destroys the capital invested in the old methods of production as soon as the discovery is put to work. In the aggregate, these losses are very large, and in times like the present, when the so-called "profit motive" is so often condemned, it cannot be too often pointed out that the whole society is the real beneficiary of these profits. Lacking them, the society would become static and would die. The fact is that private profit is never really private. The individual cannot keep it for himself, even if he would, except by hoarding, which is not a common practice in this country. He must, and he does, place it at the disposal of society.

Looked at from another angle, the business man must make a success of his business, so that he may be able to pay wages to his employees, taxes to the government, and interest to the people who have provided the capital. If he fails to do all these things, he will be "put through the wringer," as the phrase goes; that is, he will be forced into bankruptcy and out of business. This process is exquisitely painful for the business man and for the people who have risked their capital in the venture, but, what is far more important, it is a blow to society as a whole. People are thrown out of work, the continuous operation of the community is to some extent interrupted, and some degree of social disintegration inevitably results. In extreme cases, when the economic failure is large and widespread, bread lines, disorder, and even revolution may result. The point is really too clear for argument. The business man must make an economic success of his business, not only in order to survive, himself, but also in order that the society of which he is a part may survive.

That the business men of the nation as a whole have performed this function well is clear, in spite of current notions to the contrary. It is less than a decade since our successes in production were the admiration of the western world, and although they are less talked about today, they are no less

real. These successes were partly due to rare national advantages, partly to intense energy and great natural aptitude, and partly to specialization of skill carried to its highest point.

(2) *The Social Functions.* I come now to my second heading — the social functions of the administrator — and I make this rather fine distinction because, while his economic functions are also social, he has other functions which are more obviously social than economic. As you have doubtless observed, I have used the words “society” and “social” without indicating what meaning I attach to them. To define them adequately would require more time than has been allotted to me, but, as each of us probably attaches a different meaning to these words, I must take a moment to indicate the sense in which I use them. When I use the word “society” I do not refer to the amusements of a small class of rich people. I do not mean “pink teas,” dinner parties, and balls. I mean a considerable body of people which has shown the capacity to cohere for long periods of time. We use various words to describe societies of different size and different character — like tribe, village, town, city, state, and nation. Exactly what the forces are which hold these groups together is not wholly clear to us because the science of society, sometimes called anthropology, sometimes sociology, is not well developed. But we are perhaps safe in saying that a feeling of emotion of belonging to a group is the real binding force. Reason seems to play a very minor part, as is shown by the fact that groups which rely upon it are scattered by the first breath of the storm. Emotion is the central fact, and these emotions of belonging go under several names, such as kinship, community spirit, and religion, all of them buttressed and strengthened — possibly even created — by the daily working routines which must have held societies together since the birth of the race.

Using the word society in this sense, as a group held together by routines, customs, and rituals, all having an emo-

tional base, we may observe that during the last fifty years, or more, the ties which have held these groups together in the past have been breaking down.

We have all of us noticed the slackening hold of the Church upon the life of the nation, the weakening of family ties, and the increasing mobility of the population, caused primarily by the amazing use of automobiles by our people. I am not suggesting that one automobile to every six people is a bad thing, but merely that, used as they are, they have been a major factor in destroying community life. There is also another force working to undermine the community — namely, the rapid increase of wealth, caused by the exploitation of a continent, which has led to unexampled shifts of population. Hardly any families live in the old homestead, and not many spend ten years in the same place. Under such conditions, the feeling of belonging to any group is greatly weakened. But without such a feeling societies, as we have known them in the past, can hardly endure. This point is so important that I shall return to it again when I come to the political functions of the administrator. Some competent observers regard these changes as signs of social disintegration which may prove fatal to our civilization.

While admitting that this is a very depressing picture, some of us find that the gloom is considerably reduced when we recollect that at least from the time of the prophets of Israel intelligent and well-informed men have almost continuously described their own times in much the same terms. Certainly for two centuries "England has been going to the dogs" without ever getting there. To an ignorant person like myself, these symptoms of social disintegration are indistinguishable from the processes of change which we call "evolution." Of course, evolution may take a wrong turn and lead to the extermination of a species, a race, or a civilization, but so far as western civilization is concerned one would suppose that there

was less danger of such a false step now than at any previous period in history. For observe that the changes which seem to threaten us with disaster are mainly, if not wholly, the work of science. The whole setting of our lives is totally different from that of our fathers, owing to the extended use of machinery in production, the increased speed of transportation, new methods of communication, and other works of science, not the least important of which are the science of invention and the science of organization. No comparable change has occurred in the environment of the race during historic times, except when a nation was wiped out by conquest, so that we need not be greatly surprised if our society is a good deal shaken up. But, so far as these changes are the work of science, they are the work of our own hands. We made them and we can control them if we choose. This much, however, is certain. We must adjust ourselves to these changes or take the consequences. But the situation which confronts us is not new. The human race has always been in process of adjustment to environment and the only new fact that I can see in the present situation is that the rate of change is more rapid.

The business administrator of my generation did not regard sociological problems of this sort as any of his business. If he thought about them at all, he would have said that "they were problems for the professors." But the business man today cannot shrug his shoulders and leave these problems of social evolution to the professors, because he cannot possibly evade the obvious fact that it is the impact of industry upon society that is the most important cause of the changes which distress us. It is the business man who, by applying science to industry, has caused the trouble, and it is the business man who must find the remedy. "He who broke the head must find the plaster." The professors may observe with interest and record with genius what is going on, but they cannot apply the remedy because they are in fact outsiders. They may

observe the game from an advantageous position in the grandstand, but they are not players.

One of the most striking effects of modern industrial techniques which now control the lives of more than two thirds of the population is the shift which they have produced in the social center of gravity. A century ago, when this country was predominantly agricultural, the forces which held our society together were those of the family, the Church, and the direct personal relations of small producers, traders, and farmers with each other and with their customers. In contrast, modern mechanized industry, with its high degree of specialization, has lopped off a great section of the working routines of a simpler social form and put nothing in its place except the work relations at the bench, or at the counter, which are wholly controlled by the business administrator. Thus, although he is commonly unaware of it, he is in fact a key man, if not indeed a leader, of the society which he and his employees compose. This is the center of the social function of the business man which I am attempting to describe. His factory, or his store, is in fact a society differing materially from any which has existed in the past. His acts in the administration of his business may make or mar the lives not only of his employees, but of a large group with which he may have no contact. His training is highly specialized and is designed to make him act with scientific precision, and to quench, so far as a human being may, the emotional forces which are the very breath of social institutions. No wonder that he has failed in social leadership, for no one ever told him that he was a social leader in this sense.

To describe his functions as a social leader is beyond the scope of this paper, but I can perhaps suggest to you some interesting points. Granting, if you please, that his factory, or his department store, is in fact a social unit of the greatest importance, what, if anything, can he do about it? First, we

can say that he should study it as a social organism in order to understand the laws of its growth. This will at least enable him to avoid doing unnecessary damage — a most important point, because if he is ignorant he is very apt to disrupt, and perhaps kill, it in his efforts to deal successfully with the economic problems of his business. Most of us are so unaware of the social structure which surrounds us, or of the positions of its smaller parts, that as we plan changes in the operations of an industrial organization we are as likely to crush some little social organism as we are to crush a beetle when we are walking in the dark. This attitude of inattention is, I believe, by far the most common. But there are many administrators so deeply immersed in their economic and technical problems that they regard the little social organisms much as you and I regard a mosquito on a hot night. The smaller parts of social structures are extremely fragile. If you stub your toe against a stone, you hurt your toe; but if you stub your toe against one of these social organisms, you may kill it and bring the whole social structure down about your ears.

It is quite beyond the scope of this paper to attempt a description of these industrial societies or of the little social organisms of which they are composed, but I will take a moment to suggest their character. All of you are familiar with the organization charts of large industrial units showing the ingenious theory of how the organization functions. We have the president at the top, vice-presidents below him, division managers below them; still farther down superintendents, supervisors, etc. This is the rational organization as seen from the top, but the real organization which does the work, as seen from the bottom, is often very different. Accurate information about the social structure is incomplete, but we know enough to say that it is often very different from what the top executives suppose. For example, the foreman, or junior supervisor, often holds his position in name but not in fact.

The real leaders of the small working groups created by daily work routines, of which the whole structure is composed, often are unknown to the management. The men in fact choose their own leaders, and when these leaders are not recognized by management, internal frictions are set up which cause great damage. For when this happens the top executives may be cut off from the central nervous system of the organization by a wall composed of junior executives. This is the natural consequence of the conflict of emotion and reason. The organization chart which the top executive follows is a function of reason, while the social organization, which is the living body, is a function of emotion.

When, as, and if the top executive has discovered the existence of a social structure within his organization, his troubles will only have begun, for he will then find that his economic and his social functions often clash and that he must decide between them. In making these decisions, he cannot avoid taking an active part in the life of the society itself and here we come to what I regard as the most delicate, difficult, and important part of his social technique. I have remarked that the administrator is cast for a leading rôle, but it must not be dominant. Paternalism is a cardinal sin. This is well known in other forms of society. Our forefathers came to this country at considerable expense, and great risk, in order to obtain civil and religious freedom. The whole structure of our government is designed to make paternalism or dictatorship impossible, and all of us are dedicated to the faith that paternalism is the most corrosive agent that can enter into the life of a society. This is equally true of the small societies which we now see growing up in our industrial organization. These societies must be free or they will die, and their death may well portend the death of our civilization.

Here, then, we have a major, perhaps the major, function of the administrator. He must understand and promote the

social organism which in a sense he has created. If he dominates it, it will die, so that he must find some technique of promotion in which he will not take a leading part. To put the matter in one sentence, the circulation of this social body must be from the bottom up and not from the top down. In the present state of our knowledge this is a very difficult task, in which he is likely to make many costly blunders. But if he will always bear in mind his own hatred of dictatorship in any form, and if he will walk humbly before his God, he will at least save his soul alive, and, what is far more important, he will be doing his best to save his civilization.

(3) *The Political Functions.* Some of you may be disposed to think that I have already loaded the administrator with all that he can carry, but I am not done yet. As I have tried to suggest, the structure of our industrial society and the position he holds in it require that the administrator shall perform successfully both his economic and his social functions if our civilization is to survive. But, if he succeeds, a third function is automatically added to the other two. For the successful leaders of industry assume, as part of the responsibility of their positions, great political responsibility. Unless my whole conception of the society in which we live is false, this must be true. During the last fifty years the application of science to industry and to industrial organization has produced a class of trained specialists without which business could not be carried on, and the evolutionary process through which we have been passing has made business an important, if not a dominant, factor in the life of society. From these facts I drew the conclusion just stated that industrial leaders are, or should be, social leaders also. But we must observe that no society can live by industry alone. It must have government, and on its success in evolving a suitable form of government the life of the society depends.

Now, I think we can say that the form of government

under which this nation has grown up during the last hundred and fifty years has been on the whole suitable for the conditions of the times. But we must bear in mind that government, like industry, is merely a servant of society and that it must change as the society grows. During the last fifty years the social changes produced by modern industrial and business techniques have been far more radical than most of us have realized, and as a result our social techniques, and perhaps even some of our methods of government, may need pretty radical revision. Certainly they need reconsideration. This I take to be the reason for the remarkable and healthy ferment of public discussion on economic, social, and governmental problems which has been the most striking feature of the last six years. For hard upon a century the nation was so absorbed in the exploitation of a continent that very little constructive thinking was done in the field of government. If any of you doubt this, take enough time off to read the disquisitions on the theory of government written during the eighteenth century, and I think you will be amazed to find that for the most part the ideas which are offered to us today are merely a rehash of ideas which are centuries, if not thousands of years, old.

But please do not misunderstand me. Nothing could be more useful than the educational process through which we are now passing. If much of the talk we hear is old stuff, and if we are impatient to get on to something new, we should remind ourselves that first things must come first. We learn to walk before we learn to crack a safe, and after the elementary things have been learned we shall get down to business.

When we do, we shall find that the problems of government in the twentieth century are not exactly the problems of the eighteenth. For example, it has been remarked that our own government, like all others, was primarily designed to control fugitive or unruly political forces, while the problem

which now bulks largest is how to deal with fugitive or unruly economic forces. Our government has power to act in case of war, but not in case of economic crisis. At least its power to deal with economic problems is rather doubtful, and its ability to deal with them successfully is even more so.

My point is that the time has come when we must rethink our governmental problems without delay and that in an industrial democracy the men who ought to take the lead are business men. What must be done is first to think out carefully the problems of government which our new economic environment has raised. Obviously, this is a job for business men. They have created the problems; they are most familiar with them; and if they leave their solution to professors, priests, and farmers, they have shirked a primary obligation.

With some notable exceptions, it is probably fair to say that most business administrators are not now capable of dealing with these problems. During the past fifty years the progress of specialization has been so rapid that when faced with these problems of government, which are the foundation of all industrial problems, most business men are dumb. Without any desire to blame them, it seems fair to say that this condition cannot last. Business men must understand the problems of government, or we are sunk. In seeking to master these problems, the business man acts first in his economic capacity, but his obligation does not stop there. When the problems have been carefully explored and tentative conclusions reached by individuals, the real work has only just begun. For no permanently effective changes can be made in our methods of government which do not have the intelligent and active support of an overwhelming majority of the voters. Such unanimity of opinion can only be achieved by painstaking public discussion extending over a considerable period of time. There again the business man must take a

leading part. As an important social figure he must pull a laboring oar in the formation of public opinion, not by trying to force his own ideas upon others but by assisting them to think out the problems for themselves.

And here I must pause a moment to answer a question which has doubtless occurred to many of you. Why, you will ask, should the business man plunge into problems of politics and government as a business man? Can he not perform these functions better as a private citizen in the community where he lives? This question, I would humbly suggest, is based on a confusion of ideas. It is impossible to divide a man into watertight compartments; for example, business man or private citizen. Such an attempt at division would weaken the springs of action on which our efficiency depends. We all know the disastrous effects of a divided mind or a divided loyalty. This was well illustrated by men of business whom I knew about thirty years ago who tried to separate their standards of business conduct from their standards of private conduct. They meant well, but the result was that they had no satisfactory standards of conduct at all.

While asking you to recognize the essential unity of the individual, I do not wish to minimize the effect of specialization. All the activities of the doctor, the lawyer, and the business man are colored, in fact controlled, by his special training. But this does not imply that he is a professional man on certain days of the week or hours of the day, and a citizen on others. On every day and hour of his adult life he is, or should be, a servant of society, bringing to that service his specialized skill, as well as his personal character. Perhaps all that I have to say to you on the functions of the business administrator could be summarized in a plea against overspecialization. The business man who insists on devoting his whole energy to the economic problems of his business does not appreciate the logical consequences of his position, for he

is in fact insisting on social and political ostracism. Of course, he does not want that.

Some of you may fancy that I labor under the illusion that business men have not been active in politics or are not active now. Of course they have been and of course they are. But they have not always been conscious of their functions, or their power, and their activities have not always been wise. That certainly is not an overstatement. What I regard as one of the most important functions of the administrator is something quite different and much more difficult. After he has demonstrated his survival value as an economic agent and as a leader of his local society, he must bring the information and experience thus gained into the field of government, where he will work with men trained in other disciplines, like the scholar and the politician, in the service of the whole society — in other words, the nation.

The foregoing snapshots of what I regard as the three major functions of the business administrator must seem to many of you, as they do to me, to be a staggering burden. They may even appear to you preposterous and impossible. And there is a sense in which they are impossible, just as it is impossible to walk down to your office without first getting out of bed. It is quite impossible for the administrator, as we have trained him in the past, to carry out successfully the three functions which it seems to me the present condition of our society demands of him. Each of these functions — the economic, the social, and the political — is a job requiring the concentrated attention of a highly trained specialist, and most of our leading business executives have risen to positions of power by concentrating on the economic function alone. Without suggesting that such concentration has been unwise in the past, I think we can hardly avoid the conclusion that it will be dangerous, if not disastrous, in the future. In many fields my generation has carried specialization too far, and

we can observe in the field of medical care that clear distinctions are beginning to be drawn between the specialist and the general practitioner. The specialist is becoming more truly specialized, and the general practitioner is learning that his true function is to make skillful use of the specialist. Many of us have learned to our cost that the medical specialist, by reason of his specialization, lacks the broader knowledge of modern life and of his patient which is essential to the cure of many diseases.

The problem of the business administrator presents a very similar picture in another field. In industry, as in medicine, the whole field has become too vast for mastery by one individual, and the administrator should now be trained not as an economic specialist but as a general practitioner in the three rapidly merging fields of economics, society, and politics. In each field he will employ specialists, and his major task is to select them and direct their work. Of course in small industrial units such separation of function is impossible, but we need not worry about that. It is on the large industrial units that we should concentrate our attention. If adequate administration can be provided for these, we shall have solved the most difficult problem of our time. The small units have never suffered so much from overspecialization, and if the riddle of the larger units can be solved, public opinion will force the smaller ones into line.

When I was a small boy I had a propensity, which I have never outlived, for giving advice to my "elders and betters," and I remember vividly how often I was told, "Don't try to teach your grandmother how to suck eggs." That advice was sound. Academic people, and other outsiders, should avoid giving specific advice to the insiders who know their business. But it is also true that the spectator often sees more of the game than the player. And so in what I have said to you this evening I have tried to avoid specific recommendation, while

stating certain general principles which occur to me. No outsider can do more than offer suggestions, and he should do that very humbly. The specific answers to the questions which I have tried to raise must come from business men, and as I look around me I see many isolated examples of business administrators who are actually trying to perform the functions which have been suggested in this paper. I got most of my ideas on this subject from them, and if you think they have any value you can easily work out the details for yourselves.

ADDRESS

At Final Meeting of
Business Executives' Discussion Group
May 2, 1937

I AM speaking to a group of friends who know my weaknesses and will look kindly on them. You have always done so, and in fact it has been my good fortune for many years never to be judged according to my deserts. My friends and associates, both in business and in teaching, have always been too liberal to me.

In speaking to you this afternoon, I shall not attempt to say anything new; I shall not attempt to be dramatic; I shall not attempt to be amusing. I have merely selected a few of the many topics which we have been discussing this winter for further comment, and for the purpose of emphasizing again the general point of view which we have suggested to you.

No informed person will deny — I assume — that business men today are confronted not only with problems of the gravest character but with problems which they find it difficult even to describe. Sometimes it seems as if we had returned to the Tower of Babel, where the Lord “did confound the language of all the earth.” This strikes me as an interesting and important fact, because “problems” are the food on which business men are supposed to live. For half a century and particularly during the last thirty years — this school was founded thirty years ago — business men have been special-

izing in the formulation and the solution of business problems, as other professional men do in the problems of their own especial fields. And business men have made remarkable progress in solving business problems — that is, problems whose center of gravity is economic or technical. Ten years ago we should have said with confidence that business men were moving rapidly toward a more scientific control of modern industrial societies. I am not suggesting that this view was not justified, but I call particular attention to it because of the remarkable confusion which exists at the present time, and the common charge that business men in particular have failed in leadership. That charge has been made by important persons in many walks of life, but I have small interest in it. When professors and politicians point out the failures of business men, they too often forget their own failures. Failures in education and in government have been no less serious than in business. The fact is that all men fail and it is quite easy to see the mote in your brother's eye. This is merely a case of the pot calling the kettle black.

Nevertheless, there is a sense in which business men have failed conspicuously; namely, in the sense that those who have specialized in the technical and economic aspects of business policy are often quite helpless when confronted with complex social problems which are completely outside the field of their specialization, and for the solution of which they have no familiar methodology. In their efforts to deal with the social problems of business administration, some of our most prominent business leaders have shown marked incompetence, and it is because of our conviction that if such failures are long continued we court disaster that these meetings of business executives were first begun. We started these discussions because we believe that the most important problems which face business administrators today are not economic or technical but social.

At any time prior to the Industrial Revolution, the notion that large groups of people could work for a living in a common enterprise without being both in fact and in name a Society — using the word “Society” in the sense defined at our first meeting — would have been wholly unintelligible. That is what societies are, groups of people working together for an economic end, namely, to support life. This does not imply that these societies do not have aims which are not economic. Of course they do, but at all times the economic aim has been essential and has often tended to become dominant. Witness the warning in the New Testament, “Man shall not live by bread alone.”

The tendency of societies to become too much absorbed in the success of their economic aims is one of the most striking facts of history, but it has remained for our own time to separate the economic aim of the society from the society itself, and to regard large groups of people earning their living by producing cotton cloth, boots and shoes, or iron and steel, for example, as economic units without social significance. I do not wish to state the position too strongly, because the facts of the half-century following the Civil War may seem to be against me. But such a separation between industry and society is simply impossible. It can only end in disaster to both. North Whitehead made this point quite clear at our first meeting.

It is obvious that societies cannot exist without an economic aim, because their members have to earn a living. And I believe the converse to be true also; namely, that an economic aim — or what we call a “business” — cannot survive for any great length of time unless it be embodied in a society. For short periods of time, this is not true. A disembodied economic aim — that is, a business without a social body — can be a very profitable venture if run on the “hit-and-run driver” principle. But with such enterprises we are not now concerned.

The attempt to make this impossible separation between industry and society is, in my opinion, the major cause of the loss of prestige of our business leaders. Do not misunderstand me. I am not blaming them. I am merely stating a fact. Business men have followed the path of other specialists. Like the doctors, the physiologists, the economists, and many others, they have discovered that by circumscribing their chosen field they can work out a method which will give surprisingly good results within that particular area. Unfortunately for business men — and I suspect for economists also — such a separation defies a law of nature, because business is a function of society or it is nothing useful. All business leaders are leaders of “societies with an economic aim.” Every sound decision they make is based upon this law. We cannot have business organizations with that degree of unity which is essential to their long-time prosperity unless we recognize that they are societies shot through and through with, and in fact knit together by, those human relations and group loyalties which are essential to the life of normal men and women.

This is the point of view which we have endeavored to illustrate at all these meetings, and we believe it to be an important truth which all business men should recognize. Beyond this we do not venture. Nothing is further from our purpose than to teach business men how to run their business. That would be an intolerable impertinence. The common saying that the spectator sees more of the game than the player is a dangerous half-truth. What is true is that he sees something different. You are the players. We are the spectators. Possibly, we can make some useful suggestions, but the weight of the burden must fall on you. As I have already stated, there is an aspect of your problem which is new; namely, the attempt to separate the economic aim from the society. I believe it to be based on an optical illusion, which the rapid development of mass production and mass distribu-

tion has magnified to a disastrous degree. All that we can do is to report to you what we observe and perhaps suggest some lines of research which may elucidate the many aspects of this great problem. In the study of it you will doubtless follow the method of science. Beginning with patient and thorough research, you will accumulate a body of observed fact large enough to form the basis for tentative generalizations or working hypotheses. As additional observations are made, these generalizations will be progressively modified and corrected, a process to which there is no end. But a beginning has recently been made, and in that beginning my colleagues, Mayo, Whitehead, and Roethlisberger, have played an important part. Now it is up to you to push this work on as rapidly as possible, in the hope that enough knowledge can be obtained to avert the collapse of our society, which some observers believe to be inevitable. That I do not believe, but, even if I did, my advice to you would be the same, for those who take counsel of their fears go to bad advisers.

Having made these observations on our general objective, I think it may now be useful to recall some of the particular aspects of your problem which have been discussed at these meetings.

I would first recall to you the remarks of my colleagues, Whitehead, Roethlisberger, and H. A. Wright of the Western Electric Company, supplemented and illuminated by Dr. Mayo, in which they described the small groups of workers within an industrial firm and the relation of these groups to management and to each other. What they reported to you were facts observed mostly at the Hawthorne plant of the Western Electric Company, in Chicago. If all the people working in this plant be regarded as the whole industrial society, each of these small groups might be regarded as a clique, or cell, somewhat resembling the cliques which we find in all other social groups. The analogy is not exact, but,

speaking as an amateur, it seems to me that the origin of these small social groups can be traced to the fact that these industrial workers are human beings who react to their environment just like other people.

Two groups were described to you in detail, the "Relay Test Room Group" and the "Bank Wiring Group." Both were what we might call "cells" in a large industrial society with a definite economic aim. But there was a remarkable difference in their behavior. The Relay Group, although subjected to an unusual amount of technical change, seems to have retained its poise remarkably well. Dr. Mayo reports: "... The output of the test room workers continued to rise slowly for a period of years. In its upward passage this major gain ignored almost completely the experimental changes arbitrarily introduced from time to time by officers in charge of the experiment.... The girl subjects of the original experiment were as much puzzled as their supervisors by the steady increase in production."¹ This increase of output under conditions of change is a striking achievement, and it suggests that the social requirements of this group had been so well satisfied that their sympathy with the management's economic aim was assured.

The study of the Bank Wiring Group brought out a sharp contrast. Restriction of output was very marked, and seems to have been directly promoted by the social organization of the group itself. The group bonus system completely failed to stimulate production. One of the interviewers reported: "An attitude common to this group, but existing in varying degrees of intensity, may be characterized by a lack of ambition and initiative, and by a complacent desire to let well enough alone."² Again we are told: "The activities of the

¹ Roethlisberger, F. J., and Dickson, W. J., *Management and the Worker* (Harvard Business School Division of Research, Business Research Studies, no. 9), Foreword by Dr. Elton Mayo, pp. iv-v.

² *Ibid.*, p. 3.

group, then, were such as to nullify the major objective of the incentive plan. They simply could not understand that as a result of these activities they themselves were the losers.”³

The report on this group seems to show that the social life of the group was vigorous but that it had no particular interest in the economic aim of the management. Those of you who have had experience with various systems of incentive wage payments must have observed many similar cases. From them, we may perhaps draw the tentative hypothesis that the economic motive of the worker has often been overemphasized and his social requirements underestimated. There is evidence that these small social groups act as protective mechanisms to shield the worker against changes which he fears may destroy the life of his group.

Following the descriptions of these small groups, Mr. Wright reported to us many interesting observations as to their relation to each other, indicating that stratification within an industrial society is, if anything, carried further than similar regulation defining status in the geographical societies with which we are more familiar. If I may be pardoned for interjecting a personal opinion, it seems to me that these studies of the Western Electric Company are of the utmost importance, not only for what they have disclosed, but as indicating a general line of research which is certain to be fruitful, and a method which has been successful. Careful statements of some parts of this research have already been published and are available.⁴ More will be published shortly. Before leaving them, there is one observation which should be made. These studies show clearly that the “technical organ-

³ *Ibid.*, p. 9.

⁴ Mayo, Elton, *The Human Problems of an Industrial Civilization* (New York, The Macmillan Co., 1933); Whitehead, T. N., *Leadership in a Free Society* (Cambridge, Massachusetts, Harvard University Press, 1936); Roethlisberger, F. J., “Understanding; A Prerequisite of Leadership” (published by the Department of Industrial Research, Harvard Business School, in pamphlet form, 1936).

ization" and the "social organization" within the firm often differed widely, and from this you might infer that the problems which arose were due to mismanagement. But this is not the case. As you all know, the Western Electric Company management has an enviable record over a long period of time. As shown in the last pages of *Management and the Worker*, the two organizations perform separate functions which we are only just beginning to understand. As our knowledge increases, it is to be hoped that we shall discover how to harmonize them. We touch here the problem of "Remote Control," to which I shall return later.

Following these discussions of small social groups and their relation to each other, we passed to the problem of the unification of the whole industrial society; *i.e.*, the whole group working for a firm. This is the problem of industrial leadership. While it is true that all societies must have an economic aim, the geographical societies, like towns and cities, with which we are familiar, function happily and successfully although they are divided into many social groups with diverse and even conflicting economic aims. Within a single firm, however, there must be some degree of unity of economic aim or the society will disintegrate. We have here the old problem of producing unity out of multiplicity in a new form, and in business it cannot be completely solved. Every individual worker from the president to the man at the bench has a different social and economic interest, so that probably all that can be hoped for is to provide a reasonably satisfying social situation in the present with hope for the future, and a sufficient economic balance to make it possible to achieve the economic aim.

Mr. Austin T. Levy ⁵ gave us a fascinating description of the methods he has adopted to fulfill the requirements of "a

⁵ Mr. Levy is treasurer of the Stillwater Worsted Mills — a group of ten small plants employing a total of about two thousand men and women.

society with an economic aim," and he seems to have been remarkably successful. Throughout his talk, he placed major emphasis on the problem of integrating his industrial society, for which purpose he has spent money freely. There seems to be no doubt that his business has been profitable, and he stated repeatedly that this was due, at least in part, to his success in improving the social conditions. It is noteworthy that he insists on keeping his group small, and that he regards this as an important, if not a controlling, condition of success. Of course, by this method the problem of remote control, which is so serious in large organizations, is greatly simplified. The management and the worker are in almost face-to-face contact, and what approaches the character of a primary group may result. I say "approaches" advisedly because Mr. Levy's group is not truly primary. It is more like a collective-bargaining group. Face-to-face contact is achieved, but communication is in writing or by word of mouth, and economic and social problems are dealt with on a logical basis. In the true primary group, communication is by what we might call "absorption," fully as much as by conversation, and social sentiment is dominant.

It seems to me that Mr. Levy has gone a good way in establishing leadership in his "official family," but he did not claim that the method he uses would succeed if applied to large numbers of people. In fact, he told me some years ago that a mill with five hundred workers was the limit, and that two hundred was a much more satisfactory unit.

In striking contrast with his story is the story told by Dinneen in *Ward Eight*,⁶ in which the ghost of Martin Lomasney appears in a Hollywood setting. The novel is not in all respects strictly historical, but, if it had been, it would have furnished an even better case for us. Martin was a leader of genius who organized and led "a society with an economic

⁶ Dinneen, F. J., *Ward Eight* (New York, Harper & Bros., 1936).

aim" with amazing success for more than a generation. I do not know exactly how large his group was, but it was certainly ten times as large as Mr. Levy's whole group and it must, I think, have approached, if not exceeded, the size of the Western Electric Company group at Hawthorne. Admitting that Martin's success was primarily due to his own remarkable character and to a fortunate combination of circumstances, his record is none the less remarkable. Setting aside the fact that his standards of political morality did not agree with ours, he was a man of unimpeachable integrity, with an amazing genius for social leadership, combining understanding, sympathy, and a rough justice. He was a typical clan leader of Irish clansmen who created, I think, a true primary group of perhaps thirty to forty thousand souls — truly a remarkable achievement, from which we can learn much.

The problem which both Mr. Levy and Mr. Lomasney set themselves was the integration of a society with an economic aim. From one point of view, labor organizations have the same objective. As described to us, neither the company-representation plan nor the labor union was in theory or practice a primary social group. Both are designed to deal with the economic conflicts which arise between management and the worker; both aim at rational analysis of their problems; and both operate under what I have referred to as "remote control." The company-representation plan has been practically outlawed by the decision of the Supreme Court, and Dr. Mayo, speaking from experience, did not indicate much hope that labor unions would help us to an understanding of the social problems of large-scale industry, or in finding a solution for them. They are typically organizations with an economic aim too remote from the social life of the individual to be very useful in solving social problems. (I say this in spite of the fact that the actual labor leader who addressed us was in fact a social leader, although he would not admit it.)

To the foregoing I venture to add one suggestion which was not discussed at our meeting. Granting that labor unions, as we know them, are not well designed to solve the social problems within a firm, because the social patterns are too intricate and too varied, and the control is too remote, and granting also that employers must use them as bargaining agents for their employees, another possibility remains open. The problems of bargaining about wages and hours might be dealt with through these outside agencies, and the problems of harmonizing the "social organization" within the firm with the "technical organization" might be dealt with by an organization within the firm itself. If this method were adopted, both the outside labor organization and the inside social organization might perform the function for which each is best designed.

In this summary I have endeavored to remain upon the relatively safe ground of observed facts. I say "relatively safe," because even in this area we shall do well to note that it makes a great difference what facts you observe. I now move onto more dangerous ground, in an effort to interpret some of these facts, but I am comforted by the knowledge that before such a group as this it does relatively little harm if I am wrong, because you can correct my blunders.

You will remember that I have several times used the phrase "remote control" in reference to the relations between the management and the workers in large-scale industrial and commercial enterprises. This remoteness is the result of the change of scale to which Dr. A. N. Whitehead referred in an address which I quoted to you at our first meeting. In order that it may be fresh in your minds, I quote it again:

The recent phase of modern industrialism has been produced by a change of scale in industrial operations. One of the dangerous fallacies in the construction of scientific theory is to make observations upon one scale of magnitude and to translate their

results into laws valid for another scale. Almost always some large modification is required, and an entire inversion of fundamental conceptions may be necessary. For example, on a large scale of observation there are bits of matter, such as rocks, tables, lumps of iron, solid, resistant, immobile. On another, microscopic, scale there are a welter of molecules, in ceaseless activity and each molecule only definable in terms of such activity. The physical science of the two preceding centuries made exactly this mistake. It naïvely transferred principles derived from its large-scale observations to apply to the operations of nature within the minute scale of individual atoms. I suggest that our sociological doctrines have made the same error in the opposite direction as to scales. We argue from small-scale relations between humans, say two men and a boy on a desert island, to the theory of the relations of the great commercial organizations either with the general public or internally with their own personnel. In any one corporation we may have to consider tens of thousands of employees, hundreds of executives, scores of directors, scores of thousands of owners, and a few controlling financial magnates in the background. I am not saying that such corporations are undesirable. That is not my belief. Indeed, such organizations are necessary for our modern type of civilization. But I do say that observations of the behaviors of two men and a boy on a desert island, or of the inhabitants of a small country village, have very little to do with the sociology of our modern type of industrial civilization.⁷

It is the effect of this change of scale which has formed the background, as well as the foreground, of all our discussions, and there is one aspect of it which I want to consider in more detail. I will illustrate it by an example taken from the operation of an electric power station, which is partly an analogy and partly a contrast. Thirty years ago the switchboards in these stations were constructed with the switch on

⁷ "The Study of the Past — Its Uses and Its Dangers," *Harvard Business Review*, vol. XI, no. 4, p. 439.

the back of the switchboard panel, and the lever by which the switch was operated on the front. In order to quench the arc created by opening a circuit under load, the switch mechanism was enclosed in a can filled with oil. Each circuit was designed to carry a certain load, and when this load was exceeded the circuit-breaker on the switch would blow. This occurred frequently during thunder, rain, and wind storms, and, when the breaker blew out, it was the business of the operator to close the circuit again by hand. Overloads or short circuits on the lines occurred frequently and were quite spectacular. I have stood by a switchboard in a storm when the blowing of the breakers sounded like rifle fire. Occasionally, a dead short circuit would cause such a heavy flow of current that the arc produced when the switch opened blew the can off the switch, and the floor and the back of the switchboard were covered with burning oil. Before the fire could be extinguished, the oil in other cans might catch fire, destroying the switchboard and putting the station out of commission for weeks. This was annoying and expensive. Thirty years ago, when operations were on a small scale and when standards of service were low, such interruptions were not disastrous. But when station capacities increased from five or ten thousand kilowatts to a hundred or two hundred thousand, something had to be done. What the engineers did was to bury the switches in a concrete mausoleum well away from the station, and operate them by pressing buttons on a small table in the power station. These buttons merely closed an electric circuit from the station to the switch house, which operated a motor mounted on top of the switch, opening or closing the circuit at the will of the operator. This simple device was a complete success and could be used to open and close switches miles away from the power station. The distance of the operating mechanism — namely, the switch — from the operator was immaterial.

Now, we seem to have been forced to something like this type of remote control of communications between the parts of our very large industrial organizations. An order originating at the top is transmitted to the bottom, either in writing or by word of mouth, passing often through many heads and hands, but the result is not the same as in an electric power station, for we find that when it reaches the bottom it is something quite different from what it was when it started. The power-house operator presses a button and a circuit is opened or closed a mile away. But a senior executive of a great corporation issues an order and no one can tell exactly what will happen even a hundred yards away. Of course, the reason is that an electrical circuit is a mechanical device whose action can be predicted with certainty. It will always be the same. But a human circuit composed of many individuals is more like a defective electric circuit. There are weak points in it, so that the operator at one end never knows what will happen at the other. That is an overstatement. He does know that something will happen, and also that it will often be something he did not intend.

Under this system of remote control, the senior executive is in an impossible position. Whether you think of him as at the top of a pyramid, with the workers at the bottom, as he is placed on most organization charts, or at the center of a sphere, with the workers on the surface, as Mr. C. I. Barnard thinks of him, his difficulties in communicating with the worker at the bench are almost insurmountable.⁸ He can never be quite certain what the effect of an order will be, and he can rarely be certain whether an order which appears to be sound if judged by technical and economic standards will not be disastrous if measured by the standards and require-

⁸ For an admirable illustration, see "The Social Structure of Industry," by F. J. Roethlisberger (published by the Department of Industrial Research, Harvard Business School, in pamphlet form, 1936), pp. 14-17.

ments of the "social organization." With the best will in the world, he may find himself in a position where "the cause of any result and the probable result of any action are equally concealed from him."

Every experienced administrator must have observed the deflection or refraction which takes place in orders passing through a large organization. It may perhaps resemble the deflection of light passing through air or water or glass. But we do not know the laws which control it. This is a field in which research is urgently needed.

Martin Lomasney, although he controlled a really large organization, was rarely, I think, confronted with the difficulty. He never relied on remote control but on face-to-face contact. He had "kept his switches right on the back of the board."

This suggests to me that what we need in large-scale industry may be just the opposite of the remote control which works so perfectly in the electric power station. It was invented because the engineers wanted to avoid a short circuit which might destroy the switchboard. In human relations further research may show that what we desire is a short circuit to break down the resistance and the misunderstandings between individuals. I make this suggestion partly because Mr. Wright of the Western Electric Company said, in answer to my question, that his job was to produce short circuits.

Of course, if we choose, we can solve our problem of social control in another way. When a society is completely controlled by custom, the problem of communication does not arise, because there is nothing to communicate. On a circuit which is not in use, one kind of switching control is as good as another. But this solution is wholly unsuited, I think, to the situation which we face. Sooner than reduce our society to a static condition, we would deliberately blow it into smithereens.

This difficulty of communication within a large industrial or commercial organization, in the present state of our knowledge, can hardly be exaggerated. But the difficulty goes beyond this. The same difficulties arise when these massive organizations try to communicate with their customers and with the public. They are so remote that what they say seems to be either inaudible or incredible. For example, I happened to be talking recently with a high executive of a chain-store organization, not a very large one, but one that is admirably managed. Without quoting him exactly, this was the gist of what he said: "We chain-store people are so unpopular that in many states they are trying to put us out of business. But I can't imagine why. We sell people good goods at low prices. Our rate of profit is very low. What more do people want? I've inquired about the consumer cooperative systems abroad, and I think we do about all that they do for their customers and do it better. We've done everything we can think of for our customers, and yet we are unpopular."

He was not asking my advice, and so I did not offer it. But I could not help thinking that he had done everything for his customers except the one thing needful. They regarded him and his stores as strangers in the towns where he did business. He was not a part of the local society, as the local unit store was. He was remote, a force unknown and therefore regarded with suspicion. Until this problem is solved, these massive organizations will continue to be misunderstood.

We see the same phenomenon on every side. Taking our large business organizations as a whole, I think that on the average they are managed by men who are more intelligent, better trained, and more interested in the welfare of their employees than are small business organizations. The service they give to customers is as good as or better than the service of small organizations. And yet it is notorious that the large

organizations are unpopular. This is shown clearly at every session of state legislatures and of Congress. Now, legislative bodies do not act on their own initiative. They act in response to powerful pressure from outside, and it has been clear for many years that this pressure was strongly against large business enterprises. The arguments advanced are usually arguments against monopoly, but this is the shadow and not the substance. The substance is our natural dislike of strangers, our fear of the unknown.

Thus, both in their external and their internal relations, our large business organizations are faced with lack of understanding and failure in communication as a major problem. No simple or facile solution is possible. The solution may be different in almost every case. But I ask you to consider whether this is not in fact a problem which urgently demands solution, and to which your research departments ought to give immediate attention.

In the solution of the new problems raised by this change of scale in modern business, you can obtain some assistance from academic people. You will find them eager to help you. But the weight of the burden must fall on business men. The research and the formulation of tentative hypotheses is their job, because the field of research is within their own organizations, and many of the necessary facts are of such an intimate character that they cannot safely be put into the hands of strangers.

Here is a great challenge to business men. If they accept it, and apply to the solution of this problem the same degree of intelligence that they have applied to their economic and technical problems, they can regain their position of leadership in the life of the nation.

CONTEMPORARY CONDITIONS: A CHALLENGE FOR BUSINESS MEN*

You are an audience of friends. You will not expect from me novelty or knowledge or wisdom. All that you will expect from me in speaking on this subject is what the man in the street can see. All that I shall attempt is to describe the obvious — those things which, as you look back upon this period ten years hence, it will seem that no intelligent observer could possibly have overlooked. And even in this, I shall not succeed. For, as I look back over the forty years which I can remember, I cannot avoid the conclusion that at all important turning-points in these four decades I have failed to see the obvious.

By my title, "Contemporary Conditions," I do not intend to suggest the conditions of today or yesterday or last year. The appropriate phrase for that would have been "current conditions." With these, I shall not attempt to deal, for the difficulty is too great. The trouble with current conditions is that they are current. They run so fast that we cannot see them, and we are also handicapped by the fact that all too often we do not want to see them because they conflict with our preconceived ideas. "Contemporary Conditions," as I use the phrase, refers to conditions during the last thirty years or so.

* An address delivered before the Alumni of the Harvard Graduate School of Business Administration on June 19, 1937.

To describe them completely would be the work of a lifetime, and even to throw upon the screen the one aspect of them which I wish to consider requires genius of a high order. Fortunately that genius is at hand. I quote the opening paragraphs of an address delivered in this hall in 1933, by a great scholar, a great idealist, and also — perhaps because of these qualities — the wisest adviser whom I have ever known:

It so happens that the last five-and-twenty years exactly coincides with a turning point in the sociological conceptions of Western Civilization. Here, by the term Western Civilization, I mean the sociological habits of the European races from the Ural Mountains on the boundary of Asia passing westward halfway round the world to the shores of the Pacific Ocean; that is, from sixty degrees east longitude to rather more than one hundred and twenty degrees west longitude.

If you keep to the northern temperate zone, in every country that you can pass through in this long journey you will find some profound agitation, examining and remodeling the ways of social life handed down from the preceding four hundred years. This agitation as a major feature in social life is the product of the past twenty-five years. Of course this unrest has its long antecedents, but within this final short period the disturbance has become dominant. Undoubtedly, something has come to an end.

It is also worth noticing that the center of disturbance seems to lie within each country. We are not dealing with the repercussion of a revolution with one local center. In Russia there has been a revolution, because something has come to an end. In Asia Minor the Turks are recreating novel forms of social life, because something has come to an end. Throughout Central Europe, every nation is in a ferment, because something has come to an end. In the larger nations of Western Europe, Italy, Spain, (France), Germany, England, there is a turmoil of reconstruction, because something has come to an end. . . .

When in this survey we cross the Atlantic and come to America, I do not think that there is exaggeration in the refrain, that

something has come to an end. We stand at the commencement of a new thrust in sociological functioning, and this novelty is of supreme importance in respect to the education of our future leaders in business administration. Do not misunderstand me. In each nation we all want to continue the aim at our old ideals. We can only preserve the essence of the past by the embodiment of it in novelty of detail. I will anticipate the argument by stating my belief that the best feature in the past was the sturdy individualism fostered by the conditions of those times. I am here referring to the last two centuries in the life of America, of England, and of Continental Europe. . . .¹

I call your particular attention to the phrase quoted above, "We stand at the commencement of a new thrust in sociological functioning." That is the aspect of contemporary conditions to which I wish to call your attention this morning, and I note in passing that Brooks Adams in his book on *The Theory of Social Revolutions*² uses the phrase "a shift in the social center of gravity" to describe conditions substantially similar to those referred to by Doctor Whitehead.

This is not a new phenomenon. Such "shifts in the social center of gravity" have occurred before. But for my present purpose the most important point is that they are always separated by quite long intervals of time. I remind you that Doctor Whitehead remarked, "If you keep to the northern temperate zone, in every country that you can pass through in this long journey you will find some profound agitation, examining and remodeling the ways of social life handed down from the preceding four hundred years." With that observation I heartily agree. And you will observe that four hundred years takes us back to the sixteenth century at about the date when Martin Luther nailed to the door of the church in

¹ Alfred North Whitehead, "The Study of the Past — Its Uses and Its Dangers," *Harvard Business Review*, vol. XI, no. 4, pp. 436-437.

² New York, The Macmillan Co., 1913.

Wittenberg his famous message to the Pope denying the authority of the Supreme Court of Christendom in terms even more violent than those applied to our own Supreme Court by President Roosevelt.

The importance of such analogies can easily be exaggerated, but they are not, I think, without significance, and the lesson I seek to draw from this analogy is that while four centuries is a trivial space of time in the life of the race, it is so long a span in the memory of man as to carry these events completely beyond the range of our experience. If it is true that we must go back several centuries to find conditions parallel with those which we now observe, then for practical purposes we have no experience of them, so that we cannot exercise that type of foresight on which we are accustomed to rely in planning for the future.

That is the position in which I believe we now stand. Since we landed on this continent three centuries ago, nothing like this has occurred. Our own Revolutionary War of 1775 was not a social revolution. It was merely a change in the form of government which can usually be done better by peaceful means, although our neighbors in Central and South America still prefer to do it with rifles. To find any real parallel with the conditions which now face us, we must go back to the French Revolution of 1789 or the English Revolution of 1642, which clearly had their roots in the great social change which began with the Reformation.

Even at the risk of seeming dogmatic, I take my stand firmly upon the proposition that the conditions which now confront us are completely beyond the range of our practical experience, and from this I draw the conclusion that we stand almost disarmed before them. For the only weapon which we have against the future is foresight, and we can hardly escape the fact that our foresight is little more than hindsight projected into the future. Practical experience has taught all

but the unteachable that the only certainty in our world is change, and, in order to protect ourselves against it, all that we can do is to search diligently in our past for some pattern of change by which we can plan our future conduct, so as to protect ourselves as much as possible from being caught unprepared. Against that which is not within our experience there can be no foresight; we cannot protect ourselves against the unknown! This is the reason why we falter; why we are confused by a multitude of conflicting counsels; and why some of the wisest and most experienced are dumb. We are like men deprived of their accustomed weapons, or like men searching in a dark room for a black cat that is not there. This is not a nightmare; the dilemma is real. The agony is intense, and we must find some way of escape.

Many of you have probably wondered whether I have overlooked History and why we cannot appeal to her for advice. Certainly we can appeal to her; but will she answer? I refer you to Glendower's boast, "I can call spirits from the vasty deep," and to Hotspur's retort, "Why, so can I, or so can any man. But will they come when you do call for them?" Frankly, I do not believe that history can give you a positive answer to your questions, and this for two reasons. First, the record of history is too vague. It bears a strong family likeness to the Grecian Oracle at Delphi, where, as you will remember, those who appealed to the oracle commonly got an answer which was of no service to them, for it was couched in such terms that it might mean almost anything, and did in fact mean nothing useful in forecasting the future. After the event had occurred, and not till then, could you be certain what the oracle had told you.

But granting, if you choose, that you can read the message of history, I doubt whether you will be much the wiser. For the problem which faces us is new. Our society seems to be disintegrating — or at the least the joints of it are being

loosened — by the unexampled speed of what we call “material progress.” The organization and mechanization of the civilized world seem to be producing not order but disorder. Our problem is to discover a “type of social structure which can maintain itself whilst adapting its form to the ceaseless advance of material invention.” This is a new condition which is greatly aggravated by the fact that the influence of religion which has been the most powerful binding force of the societies of the past is now greatly weakened. Ask history to give you the answer to that problem and see what answer you get!

Let me illustrate my point by a concrete example. Prior to the social revolution through which we are now passing, the ones of most significance for us were the English and French Revolutions in the seventeenth and eighteenth centuries, to which I have referred. In those times, history gives us a picture of social structures which were so rigid that change was almost imperceptible to the contemporary observer, and the explosions in England and France seem to have marked the attempt of a new and powerful middle class to break the crust of an ossified upper class which was preventing growth and change. The Crown, the Church, and the Aristocracy were like an iron band around a growing tree. The explosions of 1642 and 1789 broke that band.

So far as I can see, these social revolutions throw very little light upon our contemporary situation. It is for this reason that I remarked that history cannot help us with our present problems. But if you think that history can answer your questions as to what to do on Monday morning, put a wet towel round your head and a long wet drink at your elbow and try your luck. My guess is that you will get a headache and a good deal of miscellaneous information, but no practical advice.

But if we cannot get a positive answer from history, neither can we take refuge in mysticism. We face the riddle of the

Sphinx which we must answer or die. If we cannot exercise foresight in our accustomed manner, and if history will not help us, are we "at the bag's end," as the French say? Brooks Adams, our prize pessimist, would probably have said, "Yes," in a cultivated and scholarly tone of voice. Personally, I am incapable of accepting that conclusion. I assume that you are, and I suggest to you that if history cannot tell us what to do, she can tell us what not to do, and has done so. As I have already remarked, changes of this general character have occurred at intervals in the past. Although on each occasion the forces producing the change and the results may have been quite different, in every case, I believe, those who attempted to resist the change did harm to themselves, and good to no one. When we stand in the presence of "a new thrust in sociological functioning" we are confronted with something which closely resembles a force of nature, and I believe that if we defy it we defy a natural law. I at least feel confident of this, that the forces of social change which confront you to-day are irresistible and that your whole duty is to try to understand them, so that you may help them forward. This is a gigantic task in which many of us will doubtless fail. But at least we can try, and not perish fighting against the will of God.

But how can men help forward a change which they do not understand? To that question, at least, we have an answer, for the thing has often been done upon a small scale. We are deprived of our foresight because the situation in which we stand is largely without precedent in our own practical experience. Clearly, the remedy for lack of experience is experience, and the whole development of science for generations shows how ignorance can be replaced by knowledge. An immense body of scientific observation and the techniques by which it was obtained are available for our education. The time has come to apply the methods of scientific research to our social problems.

To anyone who will take the trouble to look about him with an eye unclouded by prejudice, our ignorance is startling. Although we are well advanced in what might be called a "Second Reformation," we have practically no sociological theory which is applicable to modern conditions. As a wise man pointed out a few years ago, while we live under social conditions dominated by massive industrial and commercial organizations, our sociological theory is still based upon the principles developed from observations of two men and a boy on a desert island, or the inhabitants of a small cathedral town. And he added that unless this generation can develop a whole body of reasoned literature, which will elucidate the conditions under which we live, it will go hard with the civilization that we love.

We can now, I think, see our problem clearly. We cannot forecast the future because we do not understand the present. From that dilemma, the most promising way of escape is to study contemporary social conditions patiently until a considerable body of observed fact has been obtained, and then develop tentative generalizations which will point the way to new social inventions. In this way, we may recover the weapons and the armor of foresight which we have lost. Having passed through an era of amazing scientific and mechanical invention, we must now open an era of comparable social invention if our civilization is to survive. It is a gigantic task of the utmost urgency. We have allowed ourselves to become deeply involved in a wilderness where we have very little to guide us. Time is running rapidly against us, and we may starve before we can find our way out. But to young men that danger is not a discouragement but a stimulant, so that I look to the future with hope.

It is much easier and more amusing to form a mental image of a structure than to draw the plans and specifications for it, and it is at this point that most of us fail. While I can hardly

hope for success under such circumstances, I can at least attack the phantoms that I have raised. I am addressing a group of business men to whom I have tried to indicate the nature of the contemporary conditions — that is, the environment — in which they must function. Under these circumstances, what should they do? During the last generation they have made great progress in solving the scientific, mechanical, and administrative problems of their profession. They have immensely increased the opportunities for economic activity of the individual worker and, as a result, the amount of wealth which he can produce. The wealth of the nation during this period has increased by leaps and bounds, and the chief beneficiary of the general rise in our standard of living is the unskilled industrial worker. Without denying that the wealth of a lucky few has increased out of proportion to their social utility, and in the teeth of repeated assertions that the whole upper class has been unduly favored, my own observation leads me to the conclusion that during my life the standard of living of the well-to-do has actually fallen. That class has mistaken a standard of high living for a high standard of living, and it is reaping its reward in social disintegration. But the standard of living of the unskilled industrial workers is much higher than it was a generation ago, and yet we are confronted with the undeniable fact that they are becoming increasingly discontented. As their standard of living rises, their happiness seems to fall. I say “seems” because this is merely a matter of opinion. But it seems to me undeniable that business men have failed to sell to the unskilled workers of the nation their enthusiasm for the industrial techniques which they have developed during the last thirty years. This is the tragedy of our time. Great ability and a generation of incredible labor by business men have been worse than wasted if the result has been to undermine the happiness and the security of the immense majority of our people. But I suggest

to you that if business men will shift their attention from the economic and technical problems which have engrossed them to the social problems which confront us all, what now looks like a defeat can be turned into a victory. What I am pleading for is the recognition by business men that their most important function today is to assist in the solution of the social problems which they have been so active in creating.

These problems are clearly within their field. They have been partially described by several writers and some of the techniques for their elucidation and solution have already passed beyond the experimental stage. Should business administrators fail to do their part in dealing with them, I fear they will not be rationally solved, because the best opportunities to observe the relevant facts are all in the hands of business men. They must take advantage of their opportunities and play their part in reaching a reasoned solution of these intricate problems. Otherwise, an impatient people, already attracted by the songs of the sirens, is likely to fall a prey to ill-considered panaceas, and may even resort to violence. Panaceas and violence are not methods of finding a sound solution to anything, but methods of relieving excessive emotional tension. No lasting good can be achieved by following that road.

With the increase in scale of industrial and commercial operations and the weakening of social ties in society at large, the opportunities for normal social intercourse are becoming more and more concentrated within the walls of shops and factories, where unfortunately they are almost completely ignored. I suggest to you that this is the place at which the business administrator should go into action. His factory is in fact a society which he has brought into being, and to confine his attention to the economic and technical aspects of his business while neglecting the society which is his child, and the well-being of which is essential to the long-time success of

his economic aim, would amount to an admission of incompetence. In the business world incompetence is the unpardonable sin, and I gravely doubt whether the ecclesiastical doctrine of the forgiveness of sins would interest a court even of the "Newest Deal" type when an insolvent corporation was being put through the wringer.

In business, as in the rest of life, there is no alternative to performance. During my lifetime business men have performed well in the economic and technical fields. If they will now apply the same ability to the solution of their urgent social problems, I see no reason to doubt that they can succeed with them also. But do not mistake me. These problems are urgent, and the new responsibility is tremendous. Timid men will shrink, and if you allow their desertion to dampen your courage or throw your ranks into disorder, the battle may be lost.

The social function of the business administrator has now become so important that, even at the risk of laboring the point, I must ask your indulgence while I describe it in somewhat more detail. Recent investigations have proved beyond doubt that groups of men and women working together in stores, shops, and factories are in fact social groups, and there is evidence that they behave in substantially the same manner as other social groups whose behavior has been observed and recorded for centuries. Of this latter point, however, we are not yet certain. But we do know that the social attributes and the social behavior of these industrial groups have completely escaped the attention of business men except in a relatively small number of cases. As a result, undue emphasis has been placed upon the economic motives of the worker, while his social needs, which are the law of his being and which he must obey whether he will or no, are almost unknown both to the worker himself and to his employer. This accounts, at least in part, for the industrial unrest which menaces the pro-

duction, the peace, and perhaps the very structure of our civilization. As I said before, those who should have benefited most from the amazing increase in our national wealth seem to be on the verge of revolt against the system which has made it possible.

It may be years before the necessary facts can be obtained on which useful generalizations regarding these new social conditions can be based, and we must face the possibility that before our knowledge of the principles which create and govern them can be brought up to date, our civilization may disintegrate. This is why I say that the attack on these social problems must be begun at once, and pushed with all the energy at our command.

During the last few years, a few of our great industrial organizations have been conducting real scientific research into the social structure of industry. The results have been both useful and illuminating, so that important advances in our knowledge have been made. Also, a few other large organizations have displayed a high sense of their social responsibilities and, though their activities seem to have been based more on intuition than on scientific research, much has been accomplished. But taking the activities of business men as a whole, I do not think it is any exaggeration to say that they are almost totally ignorant of the existence of the social problems which I have been discussing with you this morning.

Here, then, we have what I believe to be the most important problem of adult education of our day. The new scientific, mechanical, and administrative discoveries of the last generation have created what amounts to a new environment in which we are at present batting around like a blind dog in a meat shop, and have already created considerable havoc. So far, our educational system has hardly recognized that the problem exists. But our business men have shown themselves remarkably teachable, and if only we can find some way to

show them that the problem exists, that it is their problem, and that we now know enough to begin work on its solution, I see no reason why they cannot solve it. They will need the patience to be satisfied with small beginnings, but if the work in this field which has already been begun is vigorously pushed, the progress made will be surprising.

I repeat, this is a problem of education, and in order to illustrate the character of it I quote a paragraph on the subject from the most distinguished educator I know.

For each succeeding generation the problem of education is new. What at the beginning was enterprise after the lapse of five-and-twenty years has become repetition. All the proportions belonging to a complex scheme of influences upon our students have shifted in their effectiveness. In the lecture halls of the university, as indeed in every sphere of life, the best homage which we can pay to our predecessors to whom we owe the greatness of our inheritance is to emulate their courage.

Certainly we shall need all the courage that we can lay our hands upon.

Business men seem to have unwittingly created a destructive force which in the present state of our knowledge and with our accustomed industrial techniques is threatening to destroy our civilization, and the question which confronts us is whether we can learn to control these destructive forces before they wipe us out. That, as I see it, is the issue which is being fought out today. In the opening skirmish our business leaders have got the worst of it. They were unprepared and ill-equipped when the battle began. They were unable to exercise foresight of the accustomed kind for reasons which I have described, and, being unprepared, their research organizations were of no service to them because the problems, being primarily social, were beyond the scope of the methods of research with which they were familiar. Under these conditions, the politicians and the demagogues, being "lads who

play by ear," had an overwhelming advantage. These are men who act on imagination without knowledge. No careful research is needed for the balloon ascensions which are their stock in trade, and, as a result, both in the political arena and in the field of literature we have been deluged for five years or more with fascinating flights of imagination which seldom, if ever, rest on a sound basis of observed fact.

The time now seems to have arrived when the balloons are coming down to earth again, and the flights of imagination are coming home to roost. Now, if ever, is the business man's opportunity. What we need is a reasoned basis for new sociological theory; a basis of fact derived from careful observation of the new conditions, on which we can build the new structure so sorely needed. For this work business men are well equipped and they have the advantage of position, because the field of observation is under their noses and the tools of research are in their hands. If from this commanding position they cannot advance and regain the positions from which they have been driven, it is their own fault. Victory in this field will require both experience and imagination. You who have had the advantage of the best training which our system of education can provide are the type of men on whom we must pin our hopes. But your task is not easy, for it requires a combination of knowledge and imagination which is rare. Ten years ago it was said in an address at this School: "The tragedy of the world is that those who are imaginative have but slight experience, and those who are experienced have feeble imaginations. Fools act on imagination without knowledge; pedants act on knowledge without imagination. The task of a university is to weld together imagination and experience."

To you, and men like you, has been committed the task of demonstrating whether these two great forces — imagination and knowledge — can be welded together here and now

in order to serve our need. We cannot wait for the weather to clear, because the fog in which we are groping favors fools who act on imagination without knowledge. The fog is the fog of our ignorance. It can only be cleared away by knowledge and experience. In former times, knowledge could only be acquired by the painful process of trial and error. It was this fact that caused Mr. B. Franklin to remark that "Experience keeps a dear school." If we are not alert and careful, that is the school in which we shall learn our lessons. A considerable part of Europe is attending that school today, and in some parts of Europe we can see civilization moved backward several centuries in order that men may relearn the lessons taught them centuries ago.

That road is open to us also and it may be the path of least resistance. But make no mistake; if sloth leads you to take that road, values in our civilization infinitely precious will be destroyed. If we allow our society to collapse as it has elsewhere, then dictatorship is inevitable.

That our social organization has already suffered severely from the changes which have taken place in this country since the Civil War, no informed person will, I think, deny. But that a collapse of our society is inevitable is certainly not true, although that is often asserted by excited and overimaginative persons. In my judgment we stand at or near the parting of the ways. It is my hope that you and your companions in arms will prevent us from sliding into the abyss. And with the known techniques of scientific social research at hand you have an opportunity to solve these problems such as has not been offered to any other nation on earth.

ADDRESS

At Business Executives'
Discussion Group Meeting

May 1, 1938

FIRST let me remark that we are all victims of the remarkable illusion that "things begin at the beginning," as the phrase goes. There is a sense, of course, in which they do. We can observe many life processes from beginning to end — like the changing of the seasons. Science and logic have also fostered in us the notions of cause and effect, although if you push your scientist back from the comparatively late effects which he can observe, you will find that he is as ignorant as yourself about "first causes." The fact is that our common practice is to observe effects, to which we tack on causes to suit ourselves, like a sort of elongated tail. Quite often the tail comes off, but the craving of the human mind for an explanation — a sort of hook to hang facts on — is very deep.

This illusion is fostered by what we know about ourselves. We can remember our own lives from a point quite near the beginning to the point at which we stand today. Our stories and novels also commonly follow the same road, tracing an episode, or a life, from the beginning to the end of some phase.

But if we could look about us without prejudice, this illusion would seem very strange, for we stand face to face with the bald — and sometimes ugly — fact that the common experiences of adult life begin in the middle, and occasionally near the end. For example, you may be brought, by chance,

into close contact with a man whom you think you "know all about," and it often happens that this chance meeting sets in motion a train of events which affect the future of both of you profoundly. As time goes on, each of you learns by degrees the real man behind the mask of convention. He opens out like a telescope length on length of courage or of cowardice wholly unsuspected. If these facts had been known at the outset, the whole train of events would have been altered; but they never are. This situation is made more distressing because it is rarely given to us to know at what stage of the proceedings we stand. We come into the theater, as it were, in the middle of the play and we must pick up from the context as best we can what has gone before. This is well illustrated by some of the stories of Joseph Conrad, which begin in the third or fourth quarter. Although true to life, the effect of this is most confusing — not to say irritating — to many readers. Real life often is irritating.

My purpose in these remarks is to introduce the proposition that men who are well equipped to deal with the rapid succession of unforeseen events in this changing world will not spend much time in trying to trace the course of cause and effect, or in arguing whether things should, or should not, be the way they are. They will rather concentrate their attention on observing what is going on, with as much objectivity as they can muster, in the hope that their observations will enable them to take the next step in advance without disastrous results. More than this, I think it is futile to hope for. The best example that occurs to me of a class of men who are trying to deal successfully with events as they occur is the business administrator; to be plain, you gentlemen whom it is now my privilege to address.

Please do not misunderstand me. I am not suggesting that there is no such thing as business foresight, but merely that my own experience indicates that we are too often tempted to

spend our time and strength in peering into the future, or into the past, while we neglect to observe what is going on under our noses.

Now, I ask you to note that at all the meetings of this group "we have stuck to our muttons." We have discussed with you current events, and ways of observing them. Let me take a few moments to recapitulate.

Our first meeting was devoted mainly to what we might call "the stage, the scenery, and the stage properties." We were trying to describe "the situation here and now" without reducing it to microscopic proportions. "Today" is not this year, or even this decade. But we did more than that. We called your attention to a fact of prime importance to all men who are required to deal with current affairs; namely, that during this generation the change of scale in business and industrial operations has been so great that it is not really a change of degree but a change of kind. We have seen in fact a metamorphosis, so that both our economic and our social structures must be looked upon as practically new facts. The importance of this change can hardly be exaggerated. If we fail to realize this, and fail to adjust ourselves successfully to our new environment, our civilization will follow the course of all plants, animals, and human institutions which are unable to adapt themselves to change. This was implicit in what Mr. Willard said yesterday morning.

There is nothing new and nothing necessarily terrifying in such a situation. But we must first understand what has occurred and then adjust ourselves to our new environment. Speaking for myself, I should say that relatively few of our business, political, or labor leaders had grasped the full implications of this change of scale. Until this is done, there is small hope that they can devise and put into practice the adjustments which the new conditions require.

Obviously under the conditions of modern life these ad-

justments can only be made by the application of scientific methods of observation and logical methods of analysis *to social situations* which have not been solved in this way in the past. It is open to question whether we can successfully apply our scientific methodology to problems of this character. But the prospect is hopeful. Scientific invention has completely changed the world in which we live, and it does not seem to me absurd to hope that reason, using the scientific method which it has created, can help us to solve some of the problems which scientific inventions have raised.

I proceed now to suggest some of the major problems caused by the change of scale. After what has been said at these meetings, it is fair, I think, to assume that we shall none of us fall into the error of supposing that in these "business enterprises" the social and the economic aspects can live apart. They are inseparably intertwined, and if you tear them apart the "enterprise" will die. But for certain purposes the effects of this epoch-making *change of scale* can be observed separately as economic and as social phenomena. This is in fact the common practice.

Looking first then, at some of the economic aspects of this change, we may observe that in certain industries large-scale production and distribution are so much cheaper than small-scale operation that the units inevitably tend to integrate into *a small number of large units* — what Professor Hadley used to call monopolies. But, after this process of integration has taken place, it recoils, so to speak, upon itself, and the competitive process which created it is modified. Prices do not change so freely or so quickly as when there was competition among *a large number of small units*. We get what economists call "rigid or sticky prices," and a situation arises where prices are said to be "administered." When this happens, the question is likely to be asked whether the private owners or the Government should do the "administering," and there has

been a tendency in recent years to resolve this question in favor of the Government.

It is not my intention to discuss this question now, because I am incompetent, but I should like to point out that the common practice of blaming price rigidities *upon the change of scale* in our industrial operations seems to me to be an oversimplification of the problem of price adjustment, if not a positive error. In the steel industry, in chain stores, and in many other fields, the pack is in full cry against the alleged "monopolists," and their execution is loudly demanded. But glance for a moment at two other fields in which we have *a multitude of small producers*; namely, farming and coal mining. Here competition has been free, prices have adjusted themselves to demand, and we are so displeased with the result that the Federal Government has intervened for the purpose of "administering" prices. The sort of price-fixing which is so commonly denounced in mass-production industries under private control is demanded by pressure groups in other industries where the units of production, or distribution, are small and competition is keen.

As I have already remarked, I am not competent to discuss this most engaging topic, but I should like to repeat that the problem of "price administration," or price-fixing, is obviously not the direct result of the *change of scale* in our industrial operations, for it turns up in an acute form when the scale of operations is small. This leads me to suggest that this problem is not economic, in the usual sense of the word, but social. As Dr. Whitehead remarked, "We stand at the beginning of a new thrust in sociological functioning." These problems of price-fixing are symptoms of social change, and they must be studied as social problems if we are to find the answer to them.

Mr. Flanders suggested to us yesterday some of the difficulties of economic management by the Government. Personally I go much further than he did, for I am convinced

that our present form of government is incapable of economic management. If that is proposed, you must first get a new form of government.

Turning now to the social implications of the *change of scale*, we find an acute and very complicated situation, for these massive industrial and business structures have raised problems in social understanding and social control quite unknown to the sociologists of the last generation. We made this fact the starting-point of our discussions, and devoted our first three meetings mainly to considering *what we do not know and how to reduce the area of our ignorance*. This is the beginning of wisdom. Here my colleagues Mayo, Whitehead, and Roethlisberger, and the officials of the Western Electric Company, have done me, and you, a priceless service. And I ask you to note that all these gentlemen were completely realistic. They did not waste their time, or yours, in trying to guess how things came to be the way they are, or in arguing that they ought to be different. Instead, they concentrated their attention on an effort to understand the facts, and on trying to develop useful techniques for their further elucidation. As I remarked at the outset, we find ourselves "in the middle of it." We are up to our waists, if not up to our necks, in a social situation which we did not foresee. When we woke up we were well advanced in what I like to believe is "a social reformation" and which I pray God our bungling hands may not turn into a social revolution.

I am not suggesting that this situation did not have a cause. It had many causes. The problem is very complex and it seems to me that we have something more important to do at this moment than "the excavation of the past." Whether the position in which we find ourselves turns into victory or defeat may well depend on what you, and men like you, *do* during the next few years. Let the dead past bury its dead, and let us get on with our business. So far as "the social

problems within the firm" are concerned, I think our discussions here have given you enough to think about, and a light to guide you.

If you will bear with me, I will elaborate this a little. First, we should bear constantly in mind that the social aspects of business which we have been considering have to do with large-scale operations. Nothing is more noticeable in the "political" atmosphere of the country today than the distinction drawn between "big business" and "little business." As we all know, the social and working conditions in many small businesses are bad, while these conditions in many large organizations are admirable. But in "political" gatherings, which I believe fairly represent the mass emotion of our people, big business "always takes the rap," while little business men are very tenderly treated. I am not saying that these expressions of public opinion are fair or just. I am merely calling attention to a significant fact. Large-scale industrial and business operations are today under suspicion, particularly by the class which has obtained the greatest financial benefit from them; namely, the workers. This fact certainly warrants the most careful investigation.

The addresses which you have heard and our discussions here can be grouped under three heads.

(1) Specific examples of problems of human relations within the firm, which require action by management. These examples, of which you can find many more in your own experience, indicated quite clearly that business men have been prone to believe that the causes of restlessness and irritation among the workers were primarily economic, and that harmony could be restored by wage adjustments. This is certainly not true. There are innumerable cases where we know that the worker acts squarely against his best economic interests in order to preserve his social status, or to hold together the working group, of which he is a part.

(2) Cases calling attention to the tendency of all of us to rationalize sentiments, emotions, and habits, in such a way that the reasons which we give to justify our actions are unconnected, or only remotely connected, with our real motives. Students of these matters testify that the real motives of our actions are very obscure, and always difficult to discover. But the discovering or understanding of real motives is essential to successful business administration.

(3) Specific techniques of observation and interviewing by which you can improve your understanding of what is causing both workers and managers to act as they do. The more completely these techniques are elaborated and used, the less friction will crop up within working groups and the more hope can be held out that the very serious misunderstandings which now hamper large-scale operations will disappear. Under this heading, our debt to the Western Electric Company is very great. It is highly improbable that there is any organization in the country which could, and would, have made such a large and valuable contribution to the subject as it did. Speaking of the group of problems which go under the general title of "the human relations and the social structure within the firm," I feel no doubt that my colleagues and the officials of the Western Electric Company have done a beautiful piece of constructive work for the benefit of this group. I can express my opinion frankly because in a sense I am an outsider.

One last word and I am done with this part of my subject. What a man gets out of addresses and discussions of this character depends largely upon what he puts into them. It remains for each one of you to fill in the blank check which these gentlemen have handed to you, and to cash it in the market of experience.

At our last meeting on March 5 and 6 the topic was "Labor Organization." The meeting was interesting and useful, as

far as it went, but I came away from it with the feeling that we had not really scratched *the surface of the most important subject which faces the nation today*. Labor organization and "collective bargaining" under existing law, with which it is interwoven, is a vast subject presenting many aspects which must be patiently and thoroughly explored. At the present time, this is a difficult undertaking. The problem *in its present form* is new to us, and both labor unions and managements often approach it handicapped by the emotions and prejudices of the past. Time and experience will remove these handicaps. In the meantime we should try to deal with those aspects of the situation which are least controversial. This is merely another example of the fact to which I have already referred, that in real life we are introduced to our problems in the middle; not at the beginning. The situation in which we find ourselves today has been in the making for more than a generation, but the limitations of our consciousness are such that it caught most of us unawares.

But "collective bargaining" in the form now required is new. Neither labor organizations nor management organizations have had time to develop a satisfactory technique, or the skill to use it; the atmosphere in which the bargaining must be done is loaded with political "static" and, what is most disturbing of all, the parties to the bargain very often do not trust each other.

None of you will expect me to deal with the technicalities of this subject, because I can throw nothing but darkness upon the details of the process of collective bargaining. I am an ignorant outsider in this field, but I have been an interested observer of political, social, and industrial conditions for more than forty years, and, because I am an outsider, I may possibly be able to clear away some of the brambles and underbrush from the scene of operations, so that the operators and experts can get on with their work.

For several years, a friend of mine in the Department of Government of the University has irritated me with his insistence that it was the duty of business men to know more about politics and to take a more active part in them. As I understood it, he was asking that business administrators should go back into activities which had been none too creditable to them in the past. From the Civil War down to 1929, business men in the United States had been an active, if not dominant, political force, and when I came onto the field myself, I felt that their activities were predominantly harmful. During the last twenty years, the worst of these political activities have died out, but the whole thing left a bad taste in my mouth which made the idea of renewed political activity unpalatable. But I now think my friend's *idea* was right. I had misunderstood the meaning of his words. When he used the word "political," he used it to mean what I call "social." How easy it is to be shipwrecked on a word! Using the word in this sense we are in complete agreement, for I believe it to be the most important function of business men to deal with social problems, and one of the largest of these is "Labor Organization."

Let me be perfectly explicit about my view of the relations between managements and labor organizations and the problems which they must combine to solve. The problems are social problems of the first magnitude, and their relations must be those of men striving with both hands to save a threatened social structure. Our first three meetings were devoted exclusively to the description and diagnosis of "social problems within the firm," and, as I have already remarked, I think our guest speakers and my colleagues have carried you close to the limits of our present knowledge within this area. I feel sure that you realize the importance of this, but I wonder whether it has occurred to you that these attitudes of mind and these methods of investigation can be extended to

social problems *outside the firm*; specifically to labor organization and collective bargaining, which was the topic of our last meeting. If you cannot use these methods of social research to plot and steer a course through the tangles of "collective bargaining," then the topic of our last meeting was irrelevant to the course of our discussions, and should have been omitted.

But I am convinced that it was not irrelevant, for we live in a society where more than half of those gainfully employed are engaged in business and industry, or in closely related services and professions. It can hardly be denied that the major problems of that society are related to business and industry, and my own observation indicates that they commonly appear as *social problems* years, sometimes decades, before they become "political" problems. The business administrator, therefore, who is trained in dealing with the social problems within a firm, operating upon a large scale, should be well equipped for dealing with the great social problems of labor organization and collective bargaining which now bulk so large on our horizon. This is the point at which, and the manner in which, business men should enter the field of politics. I have chosen to refer to the problems as social; others might prefer to call them political. The point is one over which I refuse to quarrel, for political problems are merely the reflection or repercussion of problems which have been born long before in the society over which the politician presides.

Take as a concrete example of the usefulness in "collective bargaining" of the techniques of observation and communication within the firm which have been described to you. Suppose, if you please, that the methods used by the officials of the Western Electric Company are developed a little further. Would the antagonism, the suspicion, and the mutual distrust which often make "collective bargaining" a failure, or a sham, remain serious obstacles? I think not, because the very

purpose of all the work done by this company during the last ten years was to root out these things. I am not asking you to believe that all difficulties would be removed, but I suggest that the more skillful you become in dealing with your "society within the firm," the better you will be equipped to solve some of the problems of the great society of which it is a part, and of which the great labor organizations are a part also.

But we are often told that there are more fundamental questions which must be settled before we can proceed. Some people ask why we should have these great international labor organizations at all? What useful purpose they serve? Why cannot enlightened management in large-scale industry deal directly with its own people whom it understands, instead of through remote and perhaps hostile intermediaries who, even with the best will in the world, can have no intimate knowledge of the personal problems of workers whom our friends in the Western Electric Company were making every effort to understand? These questions we are told lie at the root of the problem of labor organization and they must be settled. But there is no such necessity, and I do not believe that we should attempt to settle these questions. The important point, I think, is that these great organizations are *here*. They are part of the environment in which we live. It is not our business to try to change these institutions in accordance with our ideas of how things ought to be, but to accept them as matters of fact and adjust ourselves to them. As I have already remarked, much valuable time is wasted in arguing that things ought not to be the way they are, and in acting on this assumption. I have even seen a lad who had tried to adjust a telegraph pole to the front end of his motor-car. The results were bad for both, and history suggests that men in positions of power who fail to adjust themselves to change have often produced disaster. Please note that I am not an-

nouncing a general principle, but stating a personal opinion; namely, that in the present condition of our society we had better accept these great labor organizations which are supported by a federal statute as matters of fact, and concentrate our attention on making the necessary adjustments to them. If we adopt this course, and succeed in establishing sound working relations between labor and management organizations, I think I can see tangible achievements of great importance which these organizations can accomplish working together, but not separately.

Let me just suggest to you three great social problems which an alliance of management and labor might help to solve. First, the problem of federal taxation. As it now stands, the so-called "capital gains tax" makes it almost impossible to develop new inventions. We all know that ninety-nine out of a hundred new inventions have little or no commercial value, so that in backing a man with a new invention you are taking a hundred-to-one shot. Many men will do this from a pure gambling instinct if from no better motive, but not when they are allowed to pocket the losses but not the profits. Real prosperity is based upon the development of new inventions. Without them, society becomes static and tends to go sour. But under existing tax laws new inventions cannot be promoted. The policy of the Government is "Heads I win, tails you lose." This may well be the reason why small business men find it hard to obtain new capital. Certainly our economic recovery is being obstructed and unemployment increased by taxation of this character. Labor organizations could do much if they chose to get this obnoxious tax repealed. But they seem to believe that this is a problem for management "to worry about." Managing people and labor people would do well to get their heads together. Then both groups would have less "to worry about."

Second, the undistributed profits tax comes to much the

same thing. Under normal conditions, business must grow by reinvesting its profits. But if the reinvestment of profits is heavily taxed, sensible people will lose interest in expanding their business and take refuge in government bonds. There can be little doubt that the recent failure of the so-called "heavy industries" to establish and maintain a rate of expansion equal to the expansion of other industries was due in part to unwise taxation. The worst unemployment is in those industries. Here again, if management and labor would act together their action would be effective.

There is hope that both these taxes will be modified at this session of Congress, but they are to be retained *in principle* at the insistence of the President. *The principle is bad*, and if labor and management were working in harmony, the President would not "insist."

Let me cite one more example of the importance of a more cordial relationship. We are told by persons speaking with authority that there is need for five or six million new homes in this country today, and both government and private agencies are at work to start a housing boom. We expected one a year ago, but it did not come off. Something is clearly wrong, and it seems to be commonly supposed that building costs are too high. But this is a dangerous half-truth. The most serious obstacle lies in our extraordinary methods of *local taxation*. For purposes of raising revenue for local requirements, our cities, counties, and towns are practically limited to the taxation of land and buildings. With the rapid *rise* in local expenditures during the last decade, the tax burden on real estate in many places now amounts to sheer confiscation. The equity in mortgaged property has been wiped out, and even unmortgaged property often fails to earn much, if anything, above its taxes. On every hand, homes are being offered for sale at a fraction of what it would cost to build them. No wonder we can't start a building boom!

Faced with the confiscation of their property, Taxpayers' Associations have been organized all over the state of Massachusetts and are petitioning the legislature for relief. As matters stand today, the owner of real estate in Massachusetts has in effect given the tax collector a blank check, which when filled out he is often unable to pay. The taxpayers seem to have a good case, but I am told that they will not get relief. Taxpayers' Associations are scattered and in this state most of them are remote from the State House, while their opponents — the retailers of the metropolitan district — are all close at hand. Influence on Beacon Hill declines as the square of the distance.

The petition of the Taxpayers' Associations will probably be disregarded, but it is their own fault. They seem to have forgotten that the depression in real-estate values from which they suffer has thrown thousands of skilled mechanics out of work. Many of these live in the metropolitan district and the headquarters of their unions are there. If the taxpayers had only the wit to join forces with the building-trades unions, they would be listened to by the legislature. Any reasonable request by these groups combined would be granted.

These are three simple examples, out of a great number, where a better understanding and greater confidence between managing people and labor people would be of advantage to both. I have taken them all from the field of taxation for the sake of simplicity. At root they are all social problems, although they come to the surface in the economic field and all of them are matters for deep concern. If they are to be solved without a costly struggle, labor and management must act together. "A house divided against itself" — you know what happens. I am not pleading for subordination or surrender by either party, but for understanding and for sufficient confidence to make joint action effective. I ask you to consider as you leave this gathering whether that is too much to ask, and also what is the alternative if that condition is not met.

NOTES ON CONTEMPORARY SOCIETY*

I

NO INFORMED person can have failed to observe that the industrial society developed in the United States during the last century is showing increasing instability. Some rise and fall of economic activity — nicknamed “the business cycle” — is unavoidable, but during the last generation these oscillations have become more violent in the United States, and there is evidence that the economic balance in this country is more unstable than in other parts of the world. This is a remarkable and disturbing phenomenon in the richest country in the world, and the situation has now become so acute that the very structure of our government is threatened. These facts are quite generally recognized, and, as the alarming phenomena appear in the economic field, we have looked to our economic oracles — or prophets — for an answer. And we have received not one answer but many, most of them different and none of them of much practical value, for these oracles, like the oracles of old, either talk an unintelligible jargon or use words with double meanings. As practical advisers during the last generation or more, our economists have not been of much assistance, and the professors — with “the science” which they profess — are getting a bad name, while

* Written in August, 1938; never delivered or published.

we stand staring at an urgent problem which we cannot solve. If the thing goes on much longer, we shall begin to feel like Nebuchadnezzar in the Book of Daniel, and may end by beheading "the soothsayers" — read "economists."

This would be a pity, because many of them are admirable persons; and, besides, the fault is not theirs, but our own. Like Nebuchadnezzar, we have asked them to interpret for us a dream which we have forgotten.

The growing instability of our economic system is not due to economic causes, and no economic "soothsayer" can interpret this dream for us. The fact is, I submit, that our society in the United States has — during the last century, and particularly during the last fifty years — violated a fundamental law of nature — the law of balance. Today, our social structure is so grossly out of balance that it threatens to fall and crush us.

Twenty-five hundred years or more ago, the Greeks discovered this "law of balance" and incorporated it in their art, in their literature, in their philosophy, and in their daily life. According to this law of balance, or equilibrium, a weight of pounds — or of scientific technique — on one side must be balanced by a corresponding weight on the other. In other words, growth must be a balanced growth or it becomes a disease — too much *here*, too little *there* — the structure will collapse.

Within the last century, this law of balance has been rediscovered and found to be the law of the Cosmos, applying to this earth with all the life upon it, to the solar system, and to all the vast systems which lie around and beyond it. Scientists can now, by its use, locate the position of stars which they cannot see.

A convenient and simple illustration of this law can be obtained with a small ring with many elastic bands attached to it. If this simple apparatus is placed upon the wall and all the

elastic bands radiating from the ring are given a certain tension, the ring will assume a certain position. But if the tension on any one of the bands is changed, the position of the ring will change. Under any given set of tensions on the bands, the "system" is in equilibrium, but change the tension on *any band* and the tension on all the others and the position of the central ring are changed.

This law applies to all living things. Modern science, history, and archaeology can describe the life of plants, animals, and civilizations in terms of it. It seems to be universal and immutable, and we have violated it grossly in the development of our society during the last century.

During this relatively short period the application of the discoveries of pure science to what are generically called "useful arts" has completely changed the environment in which the peoples of Western Europe and the Americas live. They have literally created a new world for us, and the changes have been so rapid and so absorbing that we have completely lost sight of the biological and social changes which necessarily follow such revolutions in material environment.

To make clear the changes which have taken place in our environment, consider the following examples. The last hundred years has witnessed the application of steam power on both land and sea and the invention of the internal-combustion engine. On land we have not only developed transportation, which has almost annihilated space, but also machines driven by steam, electric power, or gasoline which have given to each worker ten or a dozen perfectly obedient slaves to do his work for him. Indeed, these slaves are so docile that there is now a marked tendency on the part of the workers to refuse to feed and clothe them. (Witness the plight of our railroads today, under the tender mercies of the Railroad Brotherhoods.) The revolution in transportation had the immediate

effect of spreading our population over the Western prairies, where immense new supplies of food could be produced at low cost, so that our own population increased by leaps and bounds, and we drew from Europe millions of peasants whom we converted into farmers and industrial workers with unparalleled speed. The famous "Malthusian Law" worked all right, but not quite as its author expected. It is doubtless true that the population of the globe is limited by the food supply, but as the food supply has now become almost unlimited, Mr. Malthus and his Law are under a cloud.

This increase of population produced a demand for goods, as well as for food, with the result that the small factories in the villages of our eastern seaboard were practically swept away, and replaced by much larger ones in the cities. But even in our largest cities the supply of labor proved so inadequate that even with the aid of power-driven machinery, immense supplies of additional labor had to be imported. It is no exaggeration to say that the development of power from 1865 to 1914 produced an expansion of material wealth so rapid that it resembled an explosion.

The results of the application of power to water transportation were on a similar scale. Steel ships of gigantic size moving at speeds previously impossible set in motion a system of world trade which nearly trebled the population of Europe in a century and made possible the industrial explosion in this country. But the application of the discoveries of pure science to material ends did not stop there. The use of steam power was paralleled by the invention of machinery, by the internal-combustion engine, and by the development of the science of invention, so that today it is literally true that we can invent a machine to do anything. There is no limit except the cost. By these means, man has increased his physical power so that from being one of the weakest of the animals,

dependent on his cunning — or intelligence, if you prefer that name — for survival, he is now by so much the first in physical power that there is no second. Add to the use of steam and electricity the invention of the internal-combustion engine, and we have an increase of sheer power within less than a hundred years which beggars the imagination. I mean this literally. The imagination of man has not been able to grasp the implications of this miraculous change, so that he has not been able to control or guide it.

The most amazing changes, however, have occurred in another field. Man's natural equipment for hearing, seeing, and feeling is not impressive. But science has now changed all that and made it possible for him to converse with a man ten thousand miles away without raising his voice, to hear the footfall of a fly, to see through opaque objects for considerable distances, and to record the feeble electrical currents generated by the operation of his own heart and brain. Saint John said in his Book of Revelation, "I have seen a new heaven and new earth." Our case seems to be the reverse. We have *got* a new heaven and a new earth, but we have not *seen* them. Man is the product of his environment. We have completely changed our environment within a century, and the population of Europe and the Americas has multiplied incredibly as a result. We have not only increased our power by the use of machinery, but we have carried specialization of function to a point hitherto inconceivable. But there is no evidence that during this period we have added much to those qualities that differentiate man from all other animals and make him man — namely, his mental, moral, and spiritual attributes. "But, as every biologist knows, the paleontological record shows with devastating clarity that it has been just precisely this process of achieving relative evolutionary superiority by overspecialization, with its consequent lush reproductivity, that has presaged the extinction of those species

that hitherto have tried it. That kind of evolutionary success has, up to now, always brought its own doom.”¹

This sounds most discouraging, but we can take some comfort from the fact that it is written by a biologist — that is, by an overspecialized man — suffering acutely from the condition which he himself describes. We quote it mainly because overspecialization, which has perhaps been the most marked characteristic of the civilizations of Europe and America during the last century, is merely another name for our violation of the Law of Balance, or Equilibrium, to which we referred at the outset. The destruction of a species through overspecialization is merely another way of describing a structure, or a society, which has lost its balance. It seems to me undeniable that *our* society is in this condition today, and therefore the only important problem which faces us is whether equilibrium can be restored before it topples over.

Several European societies seem to have collapsed already. The balance seems to have been destroyed by the lopsided growth caused by our success in the application of pure science to the production and distribution of material wealth which I have tried to suggest above. Not a few persons, observing the growing mechanization of our lives, and some of the evils which follow, have jumped to the conclusion that it was the fault of the machines themselves. The catch phrase, “the dominion of machines,” has been “swallowed hook, bait, and sinker” by a good many people who did not see that it was a sham. Machines cannot dominate men in any proper sense of the word, because they are in fact parts of men. “They are merely extensions of, or additions to, his arms, or his legs, or his eyes, or his ears, or to some other organ system. They are

¹ Pearl, Raymond, “Progress in the Biological Sciences.” The substance of this paper was originally delivered as an address on June 17, 1937, at Ann Arbor, Michigan. It was subsequently published in full in “A University Between Two Centuries,” *The Proceedings of the 1937 Celebration of the University of Michigan* (Ann Arbor, University of Michigan Press, 1937), pp. 233–259.

added organs.”² The danger lies not in the machines but in the destruction of the balance of nature which we have allowed them to produce during the last century. They have destroyed the balance of our *social system*, which is the heart of man’s terrestrial life.

A glance at what has occurred in this country during the last fifty years is enough to disturb the most callous. The most striking difference between modern industry and industry as carried on a century ago is the change of scale. In many different fields mass production and mass distribution are established facts. Although politicians, and many more innocent persons, get excited about the evils of monopoly, it is difficult to avoid the conclusion that the size of the unit of production, or distribution, is a function of the size of the market. World markets “produce” large-scale units of production, because such units are an economic necessity. The reason why the United States has adopted mass-production and distribution techniques more rapidly than other nations is because in this country we have the largest free market in the world. It has been said by a very wise man that “mass production and mass distribution are necessities of our modern civilization.” Certainly they are necessary to our present standard of living, and we should not abandon them until we are forced to do so.

But the change of scale in modern industry which machinery and transportation have made *possible* has made *necessary* a revision of almost the whole of our sociological theory. Principles and techniques of management which were sociologically sound when the scale of operations was small — when all the members of the working group were in face-to-face contact — become obsolete, absurd, and highly dangerous when applied to large-scale operations. But this is what we have done and what we continue to do blindly. This is the general area in which our industrial society is out of balance,

² Pearl, *op. cit.*

and it can be said with truth that it is not "the dominion of machines" that is to be feared but the dominion of blockheads. If we refuse or neglect to make the changes in our social organization which are needed to balance the structure, we deserve to fail.

This sounds pretty fierce and, in order to avoid misunderstanding, I point out that I am speaking about the future. It is not suggested that the men who developed large-scale industry were incompetent. That is obviously untrue. But I do suggest that we need a new type of leadership today. Looked at objectively, it would be most unreasonable to suppose that the highly specialized men who have risen from the ranks of large-scale industry during what might be called "its period of technological growth," and are now at the top, are of the type needed for leadership during the period of social adjustment which is obviously needed now. Some changes — perhaps quite radical ones — are in the order of nature. They are a part of the price we must pay for the benefits of specialization. We should hesitate to call in a piano-tuner to take out an appendix, but this would be on a par with asking highly specialized experts in production, or distribution, to deal with the complex sociological problems that confront us.

Today our problem is urgent. Our social-economic structure is out of balance; balance must be restored or the structure will collapse. Up to this time, we have done very little to balance the immense weight of scientific inventions in the structure of our industrial society.

The fact is, I think, that we have failed to grasp the complexity of our business or economic system. For this the economists are partly to blame. In order to circumscribe and simplify their field of research, they have ruthlessly and wantonly excluded social factors which could not be excluded without gross distortion of the practical problems which re-

quired solution. They should have pointed out to us long ago that our large-scale industries are in fact complex "societies with an economic aim" in which the social and the economic problems are inextricably interwoven. It is our concentration on the economic and technological aspects alone that has produced the disequilibrium which threatens us with disaster. Modern large-scale industry is mainly the work of experts using essentially mechanical techniques and mechanical inventions. They have multiplied these so rapidly as to make our heads spin — in fact, some heads seem to have come off. But unless we are prepared to revise the structure of the Cosmos based upon the Law of Balance, we must obey that Law and restore the balance of our social structure before it is too late. What is needed to restore that balance is not more mechanical inventions, or men who can make them, but new social inventions. We must either adjust our sociological conceptions and our social activities to the change of scale in industry or abandon our large-scale operations and the standards of living which they make possible.

The natural place to begin this process of adjustment is in our great industrial structures themselves — in fact, it is the only place, for, as we can now see clearly enough, if the adjustment is attempted by outsiders — read here "politicians" — who do not know how the structures were built, or how they work, they will be destroyed. To put it bluntly, this problem of the social reorganization of industry is a problem for business men.

Look for a moment at the practical problems of business administration which now confront us.

The administrator of any large-scale business enterprise in our modern world deals almost exclusively with abstractions. This is unavoidable. Large-scale operations involve an incredible number of details; millions of retail-sales transactions, millions of inventory items, hundreds of thousands of

payroll entries, for example. No human mind can handle these items separately. They must be simplified; that is, reduced to abstractions, for abstractions are always simple. So we resort to balance sheets, which are *pure abstractions*; operating statements, also abstractions; payroll sheets, more abstractions; inventories, abstractions again. These are not exaggerations or figures of speech. Look at the balance sheet of the General Electric Company, for example. It is a work of fiction, not a statement of facts. Or thumb over the payroll sheets of a shop with ten thousand workers. You do not see men, but names and figures. Nothing that the administrator sees is "real." "Rufus Jones" on a payroll sheet is an abstraction. But "Rufus" is not an abstraction to himself, although he may be to his wife. He is a social animal who does, and must, have a real social life of his own. If the administrator, who directs a major part of his social life, is never aware of him "as a reality," and must deal with him as an abstraction, we may look for trouble. This is not the fault of the administrator but of the techniques employed in the management of our industrial system. If we cannot improve them, the system must be abandoned, for human beings will not long submit to be dealt with as if they were abstractions. In fact, they cannot.

The conclusion seems unavoidable that the administrator of a large-scale business must be provided with tools which will enable him to deal with the human beings with whom he works as if they were realities, instead of abstractions. He has already done this in other matters. In his dealings with raw materials he does not deal with abstractions. Take, for example, the steel which he uses in manufacturing operations. The chemical composition of that steel is an abstraction — in fact, a formula. But the steel ingots, or the steel sheets, which he buys are not abstractions. He has at hand staff experts to whom this steel is a reality — who can look into the heart of

a steel ingot, if they feel like it, and tell him what they see there. Here I suggest is an example which he might well follow in dealing with his social problems. They must cease to be abstractions and be made real to him, and this can perhaps be done by the training and use of staff experts.

These are some of the social inventions to which I have referred above. As they come into use, techniques for their application — more social inventions — will be required.

Of course, a beginning has been made. Most large firms have personnel departments, but, because "the guiding spirits" of our large enterprises have not in general appreciated their importance, and have not been trained to use them, they are still trying to grow in the shade — in fact, often in the cellar. The first requirement is that "the guiding spirit" of the business — president, treasurer, or whoever he happens to be — should understand that the social problems of industry are his most important concern. Once he grasps this fact, we may expect that he will bend his energies to developing and using new staff departments adequately manned for the task. If he does not, we must get someone who will, for we stand today in regard to the social problems of large-scale business where we stood a generation ago in regard to its technical problems, or even farther back. It is a gigantic task which requires not merely good intentions but scientific techniques and new inventions for its accomplishment. But it is not impossible. Within the memory of men now living, most of the machines which are the basis of our economic life have been invented. Taken together, they form a gigantic structure which has no social counterpart. It is this counterpart, or counter-weight, which must be built to restore the balance.

We have devised line and staff departments in great industries and systems to transmit communication from the commander-in-chief to the rank and file, only to discover to

our consternation that the rank and file are either deaf or do not want to hear. They are in fact both. The technical jargon of the headquarters staff is partly unintelligible to them,³ and also, being human beings, they are interested about their own affairs. The beautiful system which we have set up does not work very well, mainly because it was too mechanically conceived. It is as if we had used the wrong material to build a machine out of. In any group possessing a social life of its own, all communication to be effective must be in both directions. Communication is not in fact the right word for it, but rather conversation; the give and take which marks the difference between the dealings of human beings with each other and their dealings with inanimate objects, such as tools. The problems which the staff departments of personnel and industrial relations must solve in the discovery and embodiment of new inventions are the methods of conversation, or human intercourse, which are the life blood of societies.⁴ These may prove to be in part rituals and new idea symbols, such as were highly developed in primitive societies millenniums ago.⁵ For we must admit to our shame that we are today less skilled in these matters than our ancestors and that, in consequence, our societies are falling to pieces, not because we cannot imitate the methods of the past, but because we

³ So far as factual information is concerned, a good many corporations are now "Reporting to Employees on Company Operations." See *Report by Policyholders' Service Bureau*, Metropolitan Life Insurance Company.

⁴ In developing the "art of conversation" within our industrial and business societies, the personnel manager — or whoever is in charge of the job — will do well to remember what "conversation" is in everyday life. If he studies it, he will see that intelligent persons "carrying on a conversation" very rarely answer each other or address themselves to "the subject in hand." Only pedants do that. The more imaginative people seem to be speaking to some aspect or topic which is assumed and understood by both but not mentioned, or to some harmonic or overtone of the subject. The better the conversation, the more obvious this becomes, until on occasions what *is actually said* may be almost unintelligible to "a disinterested observer."

⁵ See *The Social Structure of Industry*, by F. J. Roethlisberger, pp. 4-7; also pp. 14-17.

need new methods to deal with new conditions. As we have said before, our great industrial and business enterprises are in fact "societies with an economic aim," and we have concentrated our attention so much on the economic aim that we have forgotten the society, the service of which is the whole objective of business. But we shall do well to note that "the society" and "its economic aim" cannot be separated. They cannot live — in fact, cannot be conceived — in isolation. Many of our eager social reformers seem to have forgotten this fact, or overlooked it in their haste. Haste in matters of social reform is a vice. We have been too hasty and too eager in the pursuit of "our economic aim" and have destroyed the balance of our structure. It cannot be too often repeated that balance is the law of life. Now we seem to be too hasty in our social reforms. We are trying to act in advance of the necessary information and developed techniques.

II

A WORD TO THE "POLs"

But, as if we were trying to grapple with a ghost, we are here confronted with the fact that "the great society" which has spawned these distorted industrial societies is being distorted by them. By the inevitable effect of environment on growth, the society which has used science to produce a new material environment has been itself changed by it. We sometimes say that the business men, who have built up these great "industrial societies," must cure the social conditions which they have produced, doubtless upon the theory that "he who broke the head must find the plaster." But it is not so simple. The whole society, of which these men form an infinitesimal, but important, fraction, must face the problem and *will* its solution.

Our industrial and business leaders are themselves the product of their environment. The great society which they serve has made them what they are. Until that society realizes that the instability which fills it with fear from top to bottom is caused by neglect of the sort of social development which differentiates men from other animals, "equilibrium" and "equanimity" cannot be restored. Business men alone cannot do it; the politicians will not do it, because they do not care. They are not in fact "leaders," but "followers" — "lads who play by ear." If this nation is to be saved, it must save itself. Something resembling a religious revival will be required, and of this at the moment men tell us there is no sign. But is this true? One hears much talk in these days about lack of leadership, especially among business men. But it is idle talk. Leaders do not create themselves. They are the product of the social strains and stresses at work in the whole society. Great leaders and statesmen of the past, men like George Washington, Napoleon Bonaparte, and Abraham Lincoln, were products of their time. We call them great leaders. In a sense, they were, but, what is more important, they were symbols of their time, thrown up by the invisible social forces then at work, floating like sticks upon the stream of life. Salvation must come out of the heart of the people, and one thinks that during the last few years in this country that organ has "come awake."

While the task before us is difficult enough, we seem to be making it more difficult. Faced with the necessity for rebuilding a badly shaken social structure, we might at least do what we can to facilitate the process. In the long run, that process can only be accomplished satisfactorily by free men working in a free society, and it is undeniable that the growth of free societies is stimulated by an expanding economy. We need not go so far as to say that free societies cannot live in a contracting economy; that still remains to be proved. But we

do know that an expanding economy gives us hope and that men will submit to hardship and poverty so long as they have hope. A high standard of living, however, coupled with a contracting economy, is of all conditions the one best calculated to destroy hope. To force down a standard of living requires force — more force than is commonly found in loosely-knit free societies. The force of a dictator seems usually to be required.

All this is matter of common knowledge, and yet during the last few years the voters of the country have eagerly supported a program which, if long continued, has scarcity and a lower standard of living as its inevitable result. This result was doubtless unintended, but it is what we are headed for. Some of our eager reformers have faced the facts squarely and have defended hasty and ill-considered measures on the ground that only under the strain of a crisis — or even of a panic — could the nation be induced to pass those measures of social reform which most of us agree are necessary. No belief could be more mistaken. It is nothing less than reckless opportunism, and those who believe it are unsafe guides. Such a policy may, and often does, achieve a temporary success, but permanent success cannot be based on a temporary foundation.

Social reform by the method of panic is mere quackery. It reminds one of the ignorant doctor who boasted that he “was death on fits” and “gave his patients fits” so that he could cure them. In our own recent experience, the Volstead Act and its sequel stand as an admirable example of law-making by hysteria. Such reforms rarely stand the test of time. They will not “wash.” Social reforms must be matters of slow growth. Abrupt and drastic changes, made under the pressure of emergency and the hysteria which it often produces, commonly turn out to be mistakes which have to be undone. Those who sincerely desire to save this civilization by the method of social reform will do well to avoid measures

which create emergencies, or "the fiction of emergency," which is often called in to "pinch hit" for it.

This nation was born and has lived in an expanding economy up to the last decade. The expansion may have been too rapid during the last fifty years, but the abrupt change to a contracting economy, which the present Administration is now promoting, has nothing to recommend it to those who really desire social reform. It is both unwise and unnecessary. It is largely responsible for unemployment, which has been called "our Number One social problem," and for the unbalanced federal budgets, for which unemployment is largely responsible. We say nothing here of the dangers of political corruption which the W.P.A. inevitably produces.

The so-called "program" of this Administration is an extraordinary bundle of contradictions; probably it does not aim at a contracting economy, but that will be the result. Nothing is gained by painting rosy and exaggerated pictures of past and future increases in our national income when the measures which are being taken tend to decrease it. Unless the present program is radically altered, our real national income will tend to fall.

It is commonly recognized that our prosperity in the past has been due to a steady flow of new inventions, and there is no evidence that economic progress can be made in any other way. This point is brought out very clearly in a paper published in 1932, entitled "Progress and Prosperity," by Professor Adelbert Ames, Jr., of Dartmouth College, which has received far less attention than it deserved. But this Administration has, for the first time in our history, used the weapon of taxation to prevent the development and use of new inventions. The capital gains tax, the undistributed profits tax, and the monstrosly graduated income tax, while not intended to stop the flow of new inventions, certainly have that effect. For, as everybody knows who has tried it, the develop-

ment of a new invention is the most risky of all business ventures. It is in fact what the boys call "a hundred-to-one shot," and the hope of large profits is necessary to tempt even the most venturesome. But under the present system of taxation the government says to the promoter, "Heads I win, tails you lose." To which the promoter answers, "No thank you" — and new ventures stop.

If new inventions, which are the force that produces economic expansion, are desired, the government's program of taxation should be exactly reversed. Instead of taking the profit out of invention and leaving nothing but the risk, every effort should be made to encourage new inventions, even to the point of exempting them from taxation altogether. If we want to produce a climate favorable to true social reform, as distinguished from the phantom of it, which is social revolution, no effort should be spared to prolong the period of our economic expansion until these reforms are complete. It is true that expansion cannot go on forever, but it can go on indefinitely in this country, which, for practical purposes, is the same thing.

Free enterprises in a free society are essential conditions. By freedom we do not mean anarchy, which the myth of "rugged individualism" implied. But a considerable degree of economic freedom for the individual is essential. Personally, I do not think our industrial or economic system has worked very well in the past. But our present program of taxation is making a bad matter worse. It is in fact tending to destroy not only the steady flow of new inventions but the small business enterprise as well, because these are risky ventures and, with our present fantastic taxes on profits and income, no one can afford to take risks. The Administration is loud in its protestations of friendship for the small business man, but this friendship has been mainly shown by knocking him on the head. It is all very well for Mr. Jesse Jones to urge the banks

to lend him money, and to threaten reprisals if they fail. But what the small business man wants is capital, not loans. The whole nation has borrowed too much already. It is high time we quit, and we would quit if the Federal Government would let us. But borrowing seems to be the watchword of this Administration.

In fact, I would go further. The fear which haunts our society from top to bottom can be traced mainly to two causes — the effort to produce great social changes in too short a space of time, and deficit financing by the Federal Government. The two are more or less interwoven and both have the effect of contracting the national income, because both produce fear. At the moment, an unbalanced federal budget, which will obviously remain unbalanced for an indefinite period, is the worst evil. Until an administration comes into office which has the courage to “face the music,” pay its bills, and live within its income, we may expect that fear will stalk abroad. To terminate a decade of unbalanced budgets will require rare courage, because it may require heavy additional taxation, although a large reduction of unemployment would have the same effect. Taxation is unpopular; it is said to injure business. But it may be unavoidable, if we are to avoid national bankruptcy, and, what is worse, general demoralization. When an individual, or a political group, arises which has the courage to demand additional taxation, so that the nation can live within its income, they may be surprised to find that the nation will accept this program with a sigh of relief, and that the specter of fear will fade.

NOTES ON TALK TO GENERAL MOTORS CORPORATION EXECUTIVES

September 13, 1938

Mankind is now in one of its rare moods of shifting its outlook. The mere compulsion of tradition has lost its force. It is our business — philosophers, students, and practical men — to re-create and re-enact a vision of the world, including those elements of reverence and order without which society lapses into riot, and penetrated through and through with unflinching rationality. Such a vision is the knowledge which Plato identified with virtue. Epochs for which, within the limits of their development, this vision has been widespread are the epochs unfading in the memory of mankind.¹

[There are] two levels of ideas which are required for successful civilization, namely, particularized ideas of low generality, and philosophic ideas of high generality. The former set are required to reap the fruit of the type of civilization immediately attained; the latter set are required to guide the adventure toward novelty, and to secure the immediate realization of the worth of such ideal aims.²

Let me say first that I do not underestimate the burden of administrative responsibility which modern large-scale industry has laid upon the shoulders of its higher executive

¹ Whitehead, A. N., *Adventures of Ideas* (New York, The Macmillan Co., 1933), pp. 125-126.

² *Ibid.*, Preface, p. ix.

officials. But I feel no doubt that the "burden of command" is so grossly misunderstood by the general public — including in this term customers and all workers, not excepting a large fraction of the junior administrative personnel and the unemployed — as to be a real handicap to social and political readjustment. This is a serious matter and is partly due to the use of misleading words and symbols. (There is nothing more dangerous than the use of the wrong symbol or illustration.) For example, the "Organization Chart" of a large business looks like a sort of pyramid with the senior executives in the higher levels, and the "guiding spirit of the enterprise" at the apex. In this illustration, the men and women working at the bench or the conveyer-belt appear at the bottom, and the natural inference is that those at the working level bear the whole weight of the structure, while the senior executives are free men — practically dictators — who can do anything they please. This illustration seems to me to be the exact reverse of the truth. The notion is carried over from small-scale business, where at some remote period something of the sort may have been true. But the proper illustration for large-scale business today is something more like a sphere with the senior executives placed in the center and the workers on the periphery, with the junior executives somewhere in between. For the fact is that the senior executive has a minimum of freedom; he must bear not only the whole weight of the business structure which he guides but also part of the weight of the Great Society which he and his business serve. Compared with the senior executive, the worker at the bench is a free man, living on the surface of the enterprise. This is not a pet idea of my own. It was first suggested to me by Mr. Chester I. Barnard, and later reinforced by some remarks of Dr. H. Pasdermadjian and Dr. Alexis Carrel. The rapid increase in deaths from heart failure among business executives during the last decade leaves no doubt in my mind as to the terrible

“weight of the burden.” It is rapidly becoming insupportable, and something must be done about it.

Next, let me brush aside another possible misconception. There is a common saying to the effect that “the spectator sees more of the game.” This is a dangerous half-truth which daily becomes more dangerous because it encourages imaginative people without practical experience to pass judgments — which are too often listened to — about matters they do not understand. The spectator if ignorant does not “see more of the game.” He sees less — often things that are not there. But if the spectator is a humble-minded person with some experience, he may sometimes see things which escape the notice of the “players.” I beg that you will bear this in mind in listening to what I have to say.

I began by quoting the words of a wise man to the effect that “mankind is now in one of its rare moods of shifting its outlook,”³ which emphasized the importance of “vision” in such periods. We are undoubtedly passing through what is called “a social revolution.” That, few will deny. But the important point to bear in mind is that major changes of social outlook, or of emphasis, do not occur suddenly. They have their long periods of preparation, and those who attempt to produce rapid social change by revolution fail. Revolutions can shatter but they cannot create. Social changes are produced by evolutionary processes extending over generations. This is true of the changes which are now going on. They have certainly been in progress since the beginning of the Industrial Revolution, and I believe for a much longer period.

Now, it is doubtless true that the Industrial Revolution gave a tremendous impetus to individual initiative. That is the aspect of it most commonly emphasized. But it also marked the beginning of a period of increasing activity in the

³ Whitehead, *op. cit.*, pp. 125–126.

invention of time-saving machinery and to invention of all kinds — to the science of invention, in fact. While it is true that the Industrial Revolution marked an epoch of increasing individual freedom, it is no less true, and perhaps more important to observe, that the new inventions, and the accompanying increase in the “division of labor,” made individuals more interdependent — thus tending to limit their freedom. This fact was not fully realized until within the last decade — in fact, it is not fully realized today. It demands of everybody — business men, workers, housewives, professional men, and politicians — a new attitude of mind, the essence of which is the exact reverse of individualism. What is needed is an attitude of “trusteeship” — the full recognition of the amazing — yes, terrible — increase in our interdependence.

For men bearing the burden of command in large-scale industry, this change of attitude is very difficult, but absolutely vital. To put the point bluntly, we have achieved marvels in this country with mass production and mass distribution. In order to make the trilogy complete, we should have mass understanding or perception. Unfortunately, this is impossible, because by the laws of nature there is not, and there cannot be, any mass to understand. Production Departments and Sales Departments can deal with masses because they produce standardized articles which can be massed. But human beings cannot be standardized. Each is unique, and to be really understood must be so regarded. This problem is more difficult than the problems of large-scale operation which the last generation solved so well, because it is far more complex. In trying to understand humans, we must deal with “an indefinite number of interdependent variables.” No man can grasp them all, and we shall do well to recognize, and use to an increasing degree, the principle of interdependence. Each of us can see the problem only in part, and it is only by

fitting together patiently the ideas of many men that we can hope to approximate the truth.

No one who faces the facts squarely can doubt that the period before us will be one of great difficulty, and probably great suffering. Our civilization may or may not survive the strain. We do well to look into the future with clear eyes, but not with fear. Those who take counsel of their fears usually get bad advice.

Faced with this situation, there is no group in the country which seems to me to occupy a more important and strategic position than yours. Bearing in mind the quotation from Dr. Whitehead at the beginning, describing "the two levels of ideas which are required for successful civilization,"⁴ it appears to me that during the last thirty years you have mastered and applied with amazing success the ideas on one level, and that you stand in an unrivaled position to develop the ideas on the other. Dr. Whitehead refers to "particularized ideas of low generality, . . . required to reap the fruit of the type of civilization immediately attained."⁵ You have done this in the manufacture and sale of automobiles with such mastery as materially to raise the standard of living of the nation. Inventive genius, organizing genius, financial genius, have combined to produce this result. Today we need the genius to develop and apply "philosophic ideas of high generality . . . required to guide the adventure toward novelty, and to secure the immediate realization of the worth of such ideal aims."⁶ The ideas of high generality required at this particular juncture in our affairs have to do with the development of the type of human or social relations needed to carry forward the industrial adventure on which this nation has embarked. This field of thought is commonly earmarked "sociology," but I gravely doubt whether we shall get much assistance from the pedagogues because they lack the practical experience.

⁴ Whitehead, *op. cit.*, Preface, p. ix.

⁵ *Ibid.*

⁶ *Ibid.*

Our problems center around large-scale production and distribution, so we shall get no help from people in a small way of business. It is doubtful whether we can get any help from the Church; religion is now under a cloud. Looking over the intellectual and moral resources at our command, it seems to me that unless the "guiding spirits" in large-scale business come forward and deal successfully with this problem, the outlook for the future is dark.

Your group, as I have said, is ideally placed. You have succeeded in developing "the particular ideas" necessary to the economic success of a great industry. You have in your hands a very large and complex social group within which you have an excellent opportunity to make detailed observations and to develop the general philosophic ideas which are so urgently needed. Complete success in such a venture as lies before you is rarely granted to mortal men, but if you put your hearts into the work and make a determined advance toward its solution, your names will not be forgotten by the generations that succeed you. It is a great opportunity and a great challenge.

No man can hope to contribute anything significant in such a situation who is not both humble-minded and bold. You have done me a great honor in allowing me to address you. I am conscious of my ignorance and ask you to be kind to me.

You gentlemen are the highest executives of a great industrial enterprise, and I suppose we can all agree that the first step in such an enterprise is to define clearly the objective; that is, the enterprise to be administered. But my experience is that this is not always done. In your case, for example, I think many people would say that your business was to make and sell automobiles and accessories; to make good ones and to sell them at a profit. Personally, this statement seems to me a dangerous half-truth, and I should prefer to say that you were "the leaders of a society with an eco-

conomic aim." I agree, of course, that as such leaders your *first social obligation* is to operate your business at a profit. This is a social as well as an economic duty — though this point is often overlooked. If the business is not profitable, your social group — your workers and administrators — will disintegrate. It may well be that a generation ago business men could concentrate their whole attention on the economic problems of their business. It may have been true then that "business is business." But it is not true today. "There are more ways of killing a cat than choking her with butter," and there are more ways of wrecking a business than by making mistakes of "business judgment." As you know, Mr. Chester I. Barnard has defined an organization as "a system of cooperative effort." This is profoundly true, and it is important to observe that the desire to cooperate is an emotion — a feeling — which cannot be bought with money. Although often overlooked, this is one of the most obvious facts of everyday life, and it follows that if in the pursuit of his "economic aim" — his business profit — the business man forgets and so fails to inspire the necessary "spirit of cooperation," the internal friction set up within "the organization" may become so great as to burn up the business or cause it to explode. We have had many examples of this within the last few years.

My point is this: I agree that the *dominant social obligation* of the business executive is to make the business profitable, but I suggest that he cannot afford to focus his whole attention on economic problems. There are at least two common causes of failure in business — one by making what we call mistakes in business judgment, the other by failure to understand the human problems of the group of men and women who make up "the organization." What I am urging on you is the necessity in *large-scale enterprises* of understanding "the society" or "social structure and all its works."

In spite of my respect for the executives of large-scale enter-

prises, I believe that they have often failed to recognize the existence of the social problems which they have themselves created, and have therefore failed to understand them. Far from being surprising, this failure seems to me to be a very natural result of their position at the center of their "organizations," where they are subject to the terrific pressures which this position produces. These pressures tend to immobilize them in a certain sense of that word — to confine them to a relatively narrow social group — to prevent them from living the normal life of men of the world, charged with the direction of large societies, and to overconcentrate their attention on an incomplete view of the world in which they live — the competitive economic view. The pressures are so great and the work is so exhausting that they tend to live cloistered lives, like monks or college professors, while the qualities needed to guide these great enterprises are more like those of the general medical practitioner, as contrasted with the specialist. What is needed is a wide mental focus — time for meditation between periods of action and the broadest possible understanding of human nature. Except in the case of men of exceptional vitality, the pressures on our industrial leaders today are so great as to make this attitude of mind almost impossible.

As a necessary result of the change of scale in our business units during the last generation, the attention of business executives today is almost exclusively focused on abstractions. The development of these abstractions is one of the great triumphs of industrial organization during my lifetime, and so far as I can see there was no other alternative. No human mind can grasp the infinite detail of any large business. Millions of sales to hundreds of thousands of customers, millions of inventory items at a score of plants, millions of dollars invested in plant, tens of thousands of individuals to be provided with both work and pay every week — these things in detail have no meaning, and their relation to each other can-

not be understood unless they are simplified. That is what abstractions are for and so you have Balance Sheets — Earnings Statements — Inventories — Budgets and Statistics — all abstractions and all essential to the successful execution of your primary social obligation — to make the business pay. Take your Balance Sheet; it is an abstraction — useful — essential — for a particular purpose, but from which some of your most valuable assets and your heaviest liabilities have necessarily been omitted. For example, as you all know, the largest asset of your company, without which all other assets would be valueless, is the developed skill of your working and administrative force. This does not appear on your Balance Sheet.

Your Earnings Statement, also, is an abstraction, and for a similar reason. Again, I say that it is not only useful but essential. But again I say that the most important item has been omitted. For example, it might happen that in the years when your business was most profitable as shown by your Earnings Statement, you were in fact sustaining irreparable losses by the decline in morale of your administrative and working force. This is not stated in the Balance Sheet and cannot be measured; but it is there.

These abstractions were developed during a period of economic expansion so rapid as to resemble an explosion, and they are typically tools of your economic aim, and not tools of human or social understanding. They are abstractions, and human beings are not only not abstractions but will not submit to be so regarded. Each man to himself is the most vivid reality — I had almost said the only continuous reality — that he knows. If treated as an abstraction, he will either rebel or die.

This is the most serious of the unsolved problems of modern large-scale industry. Large groups of say fifty thousand men and women working together have under present methods of

organization become abstractions to "the guiding spirit of the enterprise." With the attitude of mind of the last generation and with the tools or techniques which we now have at hand, this seems inevitable. But we now know that it cannot go on. Some way must be found to deal directly with the individual as a reality or large-scale business operations will fail. In fact, they have failed, as is proved by the very general public hostility to "big business." Such an attitude of mind is not accidental; it is not the fault of a few individuals — whatever the politicians may say. It is a sign that some vital part of the structure of large-scale business is inadequate to its task. It will not bear the weight which has been imposed upon it. Possibly the whole structure may have to be redesigned; certainly some parts of it must be.

Of course, it would be childish to suppose that the social problems which confront the nation have all been caused by big business. But some of them have been, and there is no group in the country better placed or better equipped for their solution than yours. It is a great responsibility which you cannot evade.

Your problem is to transform what is now an abstraction to you — namely, your working force — into a reality. The great body of men and women who operate — and in a sense are — your organization are an abstraction *as a body*. They must be. But as individuals they are real, and you must develop the methods necessary to transform this abstraction into reality. In other departments of your business you have already done something very like this. Take for example the steel used in the springs of your Buick car. The chemical composition of that steel is an abstraction — in fact a formula. I venture to guess that no man in this room could tell which end up it went — much less make sense of it. But suppose in a new model the steel in these springs proves to be defective. How long will it take you to reduce that abstraction to a

reality? Not many days! Your technical people are realists. Even ten years ago they had to go more or less "by smell." Now there is very little guesswork. They can even take a peek into the heart of a steel ingot if they want to see what's in there.

This is merely an illustration, and I am not so simple-minded as to suppose that you can reduce your problems of human relations to realities as easily, or as surely, as you do your chemical problems. But the amazing development of technical and staff experts by large-scale business and the results of their research seem to me to point the road of progress. The method of science is first-hand observation of all the available facts with an open mind, and the results during my lifetime in the application of pure science to material utility stagger the imagination. There is ground for hope that if ability of the same order is applied to research in the field of human relations, the social inventions needed to guide our industrial adventure toward the novelty which the shift in our social outlook demands can be made. In many departments of your business, defects and minor failures can now be detected and corrected promptly. But in the human relationships, which are the life blood of that "system of co-operative effort" which it is your task to guide, minor and even major failures can and do arise daily without your even knowing it. I humbly submit that this is your Number One problem. Without your approval, and your active support, your junior executives, on whom the immediate burden of this task must rest, will neither "have the Geist nor the Go"⁷ to carry it through.

If you will permit me, I will try to illustrate what I have been saying by a practical example with which I think you are all familiar. In any of your producing plants there are two organizations — the formal organization, shown on the

⁷ Sir William Osler.

“organization chart,” and the informal or social organization, which is not shown on any “chart”; often not consciously “known” by anyone, but which is “the life” of the men and women who work together under your leadership. The “formal organization” is a masterpiece of what might be called engineering skill — logical from top to bottom. Largely the product of one generation, its purpose is to define the responsibilities of each member of your executive and supervisory staff and to provide a method of transmitting orders from the top to the bottom. An organization chart can be regarded as “a line of communications” in which the positions are “stations” in the operating systems. With this chart you are all familiar, and it is essential to operating efficiency. Being, in effect, a method of production control, it is logically and mechanically designed, and all the men included in it are picked for economic efficiency and are “production-minded.”

No one can find fault with this arrangement except to suggest that under modern conditions the concept on which it is based is oversimplified. For besides the “formal organization” there is an “informal organization,” so called perhaps because nobody “organized” it. It might even be called “a work of nature.” It does not follow the lines of the formal organization. It is non-logical and complex with the complexity of all living and changing creatures. In most large-scale business operations this “organization” is unknown and often unsuspected by the executives, although they are a part of it. But to most of your workers this “informal organization,” or the part of it to which they belong, is “the system” because it is in fact an integral part of their lives. About this informal or social organization we now know relatively little. It is a spontaneous growth resulting from the daily work routines, and the personal characters of the men and women working under the direction of your “formal organization.” About the “formal organization” many of your workers know

little except the segment of it that impinges upon their lives.

From what we know and guess, we are able to say that "the informal organization" seems to be composed of relatively small groups or cells growing out of your formal work routines, that these small groups have "a will to live as a group" resembling the "old-fashioned" family units, and that their attitude is often hostile to the executive and technical staff, even in the most harmonious "industrial societies." This is not surprising, because it is assumed to be the business of your technical staff to make frequent changes in design or in operation in the interest of your "economic aim." Your technicians work through the logics of their profession, and once these changes have been approved by "the proper authority" it is the business of "the formal organization" to make the changes effective. As the very existence of "the informal organization" is commonly unknown to the members of your technical staff, the welfare — even the life — of the small working groups is often disregarded in reaching executive decisions. While this is perfectly natural in the present state of our knowledge, it is most unfortunate because it sets up internal friction in "the system of cooperative effort" which may destroy it, and will certainly make more difficult your primary social obligation — namely, economic success. My point is that defects or blind spots in our social or human understanding can easily be as fatal to the earning of profits as errors of "business judgment." I will not elaborate the point. It is not original and has been discussed from several points of view by my colleagues.⁸ But I do advance the opinion that we have here a serious failure of organization which can and should be corrected. This failure is most obvious in the "system of communication" which is a major function of the

⁸ Mayo, Elton, *The Human Problems of an Industrial Civilization* (New York, The Macmillan Company, 1933), *passim*; Roethlisberger, F. J., *Understanding: A Pre-requisite of Leadership* and *The Social Structure of Industry*, *passim*.

formal line organization. Very often this "system of communication" simply breaks down. Orders starting "at the top" — or more properly at the center — are so "refracted" in transmission as to be unintelligible or inaudible by the time they reach "the level of the bench." This fact has been often observed in large-scale business enterprises,⁹ and I suggest that it is due to failure to understand and define clearly the functions of the line organization. This failure may originate in, and is certainly aggravated by, the use of the wrong terminology. We speak of "a system of communication," which suggests a method of transmitting orders — in short, a one-way street. This is a false symbolism, for it is just as important for "the guiding spirit" at the center to hear and know what is being thought and said "on the periphery" — which is the real field of activity — as it is for the workers on the periphery to know what is being invented and decided at the center. "Communication" is the wrong word. What we mean — or ought to mean — is "conversation" — a two-way street and a very broad one. For useful conversation must have great latitude. Only scientists and pedants "talk to the point" — conversation should be capable of transmitting emotion — the overtones or harmonics of the spoken words. To meet this requirement, our two-way streets must be wide.

Here, I suggest, is a field which will repay careful study. "Communication" is not what you want but "conversation," and the problem is complicated by the fact that very often the "parties to the conversation" talk different languages. The technical expert and the executive commonly talk the logical language of economic efficiency, while the worker at the bench talks the language of group loyalty, sentiment, feeling, emotion — non-logic. In such a case the language of each group is an unintelligible jargon to the other. This

⁹ See letter of President of The Great Atlantic and Pacific Tea Company to his employees, dated December 31, 1936.

is a handicap which is not likely to be removed until it is clearly recognized on both sides. The chemist, the mechanical or industrial engineer, in reporting to the executive, uses a language which is unknown to the worker fighting for the life of his group, which the expert, all unwittingly, is threatening to annihilate. For this reason, it is of the first importance that the high executive should talk the language of the worker, and talk it fluently; otherwise, his decisions will inevitably be based on inadequate information. Lack of such understanding is the cause of much serious economic loss, for the social life of the group, as crystallized in "the informal organization," is fully as vital to economic success as "the formal organization."

It is desirable but may not be essential that the technicians should be bilingual. But the executive and particularly "the guiding spirit of the enterprise" must talk both the logical language of the formal organization and the language of the informal organization, and talk both well. Otherwise, he cannot lead the society of which he is the head and "the system of cooperative effort" will fail. I am keenly aware that our present knowledge of "the human factor in industry," and the language which it talks, is meager. We need the most earnest and penetrating research in a considerable number of large-scale industrial units, and we need it at once. Whether this research will be undertaken in time, and pushed with enough vigor to save our industrial civilization, I do not know. But I do know that unless the importance of this work is understood by our business leaders, and unless they personally set the wheels in motion, the work will not be done. No subordinate can undertake the task, for if he did he would not be a subordinate.

You hold one of the key positions. You have a great responsibility and a great opportunity which I hope to God you will grasp.

LEADERS OF THE PAST AND LEADERS OF THE FUTURE*

I AM usually introduced as “a professor,” but this time I was introduced as “a doctor.” That is a respectable enough title — if a little clouded. I am not a professor in any proper sense of the term. Professors are people who live in rooms with a regulated temperature and eat abstractions. The real world is such a shocking place that on the whole they don’t visit it. I had the misfortune to be brought up in a real world and I have never abandoned it, so I don’t really belong in the professorial class.

In regard to the title to my address, I have just a word to say. Chauncey M. Depew was perhaps the greatest after-dinner speaker of his time. Almost all that he has said has been forgotten, and very properly, because it had no significance. But I give you the following example of what seems to me to be a piece of real wit, appropriate to this occasion.

He was one of the speakers on a program at a very large meeting and, when his turn came, he rose and remarked in his pompous way, “Mr. Chairman, Ladies and Gentlemen, I have been asked to speak to you tonight upon a very important subject.” He then repeated twice the title of his address as shown on the program, and remarked: “I call your at-

* Address delivered before the Management Conference of the National Retail Dry Goods Association, at the Hotel Astor, New York City, May 23, 1939.

tention to this title particularly. It is an important and most interesting subject, to which I shall not have occasion to refer again during the course of my remarks."

I have nothing to add to this, except that titles to addresses are a good deal like menu cards in a restaurant. They cover a multitude of sins and they can also be stretched to almost any limit.

If I were choosing my own title for an address to this particular audience, I think I should use the title: "Large-Scale Business Operations; Some of Their By-Products." The change of scale in business operations is the most important economic change which has taken place during my lifetime and, as you know, the by-products of an operation are often more important than the product. It is to some of the "by-products" of this change of scale that I particularly desire to direct your attention.

THE CHANGE OF SCALE IN BUSINESS OPERATIONS

No one can fix accurately the date at which this change of scale took place; in fact, there is no such date. These changes are gradual and take place over considerable periods of time. I can say this, however, that in my opinion it did not begin as an important phase in the life of the nation until after the Civil War, and I should say that it did not become a dominant force until after the panic of 1893. It was not until 1898 that strong recovery from this panic began, and from that time on I think you can see plainly that the change of scale in business operations was one of the most significant factors in the life of the nation. Of course, the roots of a change of this kind go back very far, but the thing which I am referring to is the appearance of this growth *above the ground*, so to speak.

If you go back to the year 1880, for example, I think it not unfair to say that practically the whole business of the country was done on a small scale. While today practically all busi-

ness — large and small — is done by corporations, fifty years ago most of the business of the country was done by partnerships. During this relatively short period of a half-century, partnerships, as an important factor in business life, have largely disappeared and large-scale business has become a dominating factor. Fifty years is a long time in the life of an individual, but it is a very short time in the life of a society. I emphasize the shortness of the time because the change which has taken place is, I think, of the utmost significance.

When I speak of a change of scale, I do not mean a mere change of size. A very large business operation isn't just a small-scale operation made bigger; it is a new fact, a new creation, something that didn't exist before. This is a point which I think has not received sufficient attention. Everybody admits that the size of the business unit has increased enormously, but most people believe that a large firm is merely a small firm grown larger. This, I suggest to you, is a cardinal error. In the change from a small firm to a large firm, you see not a change of size but a metamorphosis — a "new animal," in fact — the nature and qualities of which we do not well understand.

Without laboring the point, I give it to you as my opinion that, unless we can contrive to understand and control the social effect of these large-scale operations, the experiment in industrial democracy which we have been trying in this country for a century and a half will fail.

PARTNERSHIP OPERATION IN THE EIGHTIES

In order to illustrate the point which I have been making, I will try to describe to you what I remember of a small business as it was carried on fifty years ago. The firm of C. F. Hovey and Company had its place of business on Summer Street, in Boston, where the business is still carried on.¹ But

¹ A firm carrying on a small retail dry goods business at the time referred to.

at that time it was a partnership and not a corporation; a partnership managed by good, solid, successful people. Now, as I look back, it seems to me that one of the most important factors in its operation was that the partners knew everybody with whom they had any dealings. They knew them personally and intimately. They knew the people from whom they bought their goods, whether they were located in this country or in Europe. They knew all their customers, and of course they knew all their employees. There was an intimate personal relationship which tied the whole group together with a binding force which is today very rare.

Before my time, during the great Boston fire, I have been told that the store was three times threatened with destruction and that, after the iron shutters had crumpled with the heat, the employees of the firm, by spreading wet blankets over the building, saved the stock which it contained.

This little concern is, I suggest to you, best described as "a society with an economic aim." The purpose of that society, like every other social unit right down to the family, was to make a living. But making a living was not its whole life; it was a little society fitted into the larger society of the town of Boston, of which it was an integral part.

ECONOMIC AND SOCIAL AIMS INTEGRATED

Now, I want to call your attention to an interesting and what I believe to be an important aspect of the business. The partners who managed the business were completely conscious of the economic aim. They were well trained, successful business men of their period. If you had asked them, they probably would have told you that they were "hard-boiled business men" and that "business was business." Their method of doing business on the economic side was similar to the techniques which are used today, and its quality is proved by its success.

In contrast with their conscious attention to the economic aim, and their use of well-established business techniques, their management of "their society," while successful, was, I think, intuitive — by which I mean not conscious. They contrived in some way to make the social adjustments with their employees, their customers, and their suppliers with remarkable success, but without any techniques of which they were conscious.

I want particularly to emphasize this contrast. The economic aim was conscious and it was carried on in an orthodox way — not very different from the way business is done today. But the management of "the society" was unconscious. In some way, which I do not clearly understand, these men were able to manage both aspects of the business successfully, using conscious techniques for one and intuition for the other. This might lead the unsuspecting to the conclusion that a business can be divided into two parts — the economic aim on the one side and the social obligations on the other — but, as a matter of fact, these are merely two aspects of one whole. The society and the economic aim are one body. You cannot separate them without killing both. Apparently, if the scale of operations is small, this extraordinary method can be successfully pursued; in fact, we all know that it was. I emphasize the point because our efforts to do the same thing on a large scale have obviously failed.

It may be of passing interest to observe what went on from day to day. I comment on this because I think it is exactly what goes on now — buying and selling. The only difference is that the operation was highly personalized. To give you an example, my mother was a lifelong customer at Hovey's. I use her as an example because she was quite typical of the society of Boston in that period. I can see her going there to buy gingham — not dresses, for there were no such things; dresses were made by hand. She would be met on the floor

by one of the partners whom she knew. When she told him she wanted to buy gingham, he knew instantly that her brother, Edmond Dwight, made ginghams at one of his mills and he would never think of showing her ginghams made at any mills but her brother's. It would have been not only useless but impolite to show her any other goods.

That is the sort of intimate personal touch which was of the essence of all the transactions of the firm. You see here an example of an economic activity woven into the social structure. The two blend in a way which is impossible in large-scale business operations of the present day, as we now conduct them.

EMPLOYEE RELATIONS AND RELATIONS WITH SUPPLIERS

This is an example of customer relations, but employee relations were just as significant, because if the relations between the partners and their employees had not "squared" with the standards of social conduct in the town, the customers would have known it at once and gone elsewhere. The same remark applies to the relation of the partners to their suppliers — the people from whom they bought their goods in this country and in Europe. They were personalized to an extent which is impossible in a large-scale operation today.

As an example of employee relations, I remember as a boy what I heard my elders say about a new firm which had recently started in Boston and which used what were then called "shopgirls." This seems to have been an innovation which greatly shocked the ladies of Boston, who were apprehensive of the relations of these girls to their employers. In this firm, which was competing with C. F. Hovey and Company, the motto seems to have been: "Get on, get honor, get honest." I call your attention to the fact that "get honest" comes at the end — honesty being a luxury which could be afforded only

by a man who had "got on" and "got honor"! (This is a witticism which is perhaps a half-truth, but is useful nevertheless.)

I remember another store, owned by prim religious people. I don't know whether they were Methodists or Baptists, but I know they were prim. So far as the gossip which I heard was concerned, there was no talk of improper conduct in regard to these people. The complaint was that they didn't pay the girls enough. My mother simply wouldn't go there, her attitude being: "I will not buy. I don't care whether the goods are cheap and good, or not. But I will not trade at a store where the girls are underpaid." A curious attitude, you see; a feeling of social responsibility on the part of the customers. Today, this attitude, if it exists anywhere, is certainly very rare. In those days, people bought on the basis of quality and adherence to established social convention. Today, people buy on the basis of price and "society be damned."

To sum up the small-scale operation of half a century ago, the essence of my feeling about it is that it was a "society with an economic aim." All societies, fundamentally, come down to that. But the most striking characteristic of the small business of that time was intimate personal knowledge all through the structure. The partners knew not only their customers; they knew their employees; they knew the people who supplied them; they knew the society in which they were imbedded; and they lived decorously according to the rules of that society.

The economic aim was conscious and well established. I think you will find that their business methods were similar to yours and would stand the acid test. But the handling of the social problems of the business was purely intuitive. They went "by smell," and their "smelling" was good. Of course, it is much easier to smell a thing that is within a hundred yards than a thing that is a hundred miles away. The diffi-

culty of smelling increases with the square of the distance. In those days, the whole social fabric was blended together. There was no distinction between employees, customers, suppliers, and the public. They could not have imagined a "personnel department" or a "public relations department." Such things would have had no meaning for them.

THE LARGE-SCALE BUSINESS OF TODAY

Now let us consider the large-scale operations of today. Multiply the example I have given you by a thousand and I suggest to you that you have a new creation — not merely something a thousand times the size of the old thing. Of course, these great business and industrial organizations are still "societies with an economic aim." They would not be here unless they were. As in the old small-scale organization, they are conscious of their economic techniques but they have no conscious social techniques. In the small-scale operation of a half-century ago, this arrangement apparently worked well, but I think we have failed conspicuously in handling the social problems of our large-scale operations. It was in the management of their social problems that our grandfathers made their great successes. They created a free society, based on compromise, and showed amazing genius in the management of their social problems. That is where we have made our most conspicuous failure.

The reason for our failure, I think, is obvious. Please bear in mind that I am not now making "value judgments"; I am not saying that people are good or bad. I am merely describing what I see. As I have already remarked, the reason for our failure is obvious, but it is commonly overlooked. In large-scale business operations, it is impossible to see the details. There are too many of them. There are literally millions of items which have to be included in all important business decisions. No human mind can grasp such a mass

of detail. Those who tried it during the period of transition from small to large-scale business were "lost in the dust."

We have been literally forced to simplify all the problems of large-scale business and, in order to do this, we have resorted to abstractions, the great tool of simplification — mathematics, statistics, etc. We observe them in concrete form as balance sheets, earnings statements, inventories, payroll sheets, etc., and I think that we may say that the use of these abstractions has met with remarkable success, so far as the economic aims of business are concerned. Compared with the most successful small businesses of a half-century ago, the economic techniques of large business organizations today are marvelously successful. But we should not forget — although we commonly do — that we are dealing with abstractions and not with realities.

Take, for example, the balance sheet of a great business enterprise. You will find on one side of it assets which run into hundreds of millions of dollars, and on the other side liabilities which exactly balance them. But it is perhaps unnecessary for me to point out to you that the most important asset of every large business has been omitted from its balance sheet. The assets of a business are not land, buildings, machinery, inventories, bills receivable, cash, investments, etc. They are the acquired skills of the management and of the workers. If these skills were wiped away, or if those who had the skills refused to exercise them, the assets of the business, as shown on the balance sheet, would be practically worthless.

Do not misunderstand me, I am not suggesting that these mathematical abstractions are useless: I am merely suggesting that there are limits to their usefulness, and I have tried to give you one illustration of what I mean.

So much for the use of abstractions as applied to the economic or business aims of the society. Now look at these same abstractions as applied to "the society" itself. You will see at

a glance that the thing does not make sense. Human beings are not abstractions, and nothing but harm results from an effort to use abstractions in dealing with them. Much harm has already resulted.

The point to which I desire to draw your attention is this, that in these very large-scale operations abstractions can be used with admirable results in simplifying the problems connected with what I have called "the economic aim," but they cannot be used in dealing with people. We have not yet developed adequate conscious techniques for dealing with people in industry — that is, for dealing with "the society" — by which I mean the whole body of people employed by one particular firm. This society, which includes everybody from the president to the office-boy, and to the man or the girl at the bench, or the girl selling goods over the counter, is in fact the only important asset of the business, and it is in the management of this society that we have made our most conspicuous failures.

This is not surprising, and I should be the last to blame anyone for it. This generation was placed in a very difficult position. So far as the management of "the society" is concerned, our predecessors left us no tools, because they had no conscious tools to leave. We have been faced with the problem of inventing and developing new social techniques and it is here, I think, that we have not as yet completely succeeded. But, as I have suggested before, we must succeed if our industrial system, and the free society in which we have been brought up, are to live.

Of course, I am quite aware that many able and high-minded men are now engaged in trying to produce formulae by which our social problems can be solved. Within the past week, for example, two very interesting papers have come across my desk in which the personnel problems of large-scale business are reduced to quite elaborate mathematical for-

mulae. We seem to be engaged in the "indoor sport" of trying to make ourselves believe that people can be reduced to abstractions and managed by mathematical formulae.

To me, this is a very disturbing fact, because it looks as if we were trying to find some way to avoid facing the music, to find some short-cut to success in dealing with our social problems. Let me say at once, and with all the emphasis that I can command, that there is no short-cut; that we must face the music, and that it will take us a generation to get out of the mess in which we find ourselves today. But let me add that I have no doubt whatever that "where there's a will there's a way." If we really want to solve these problems, they are entirely capable of solution, with the brains and energy at our command.

It is unfortunate that we cannot turn to the past for advice and experience in handling these problems. But I think that is a fact which we must face. The past cannot give us the answer to these problems because the past never had the problems to solve. Nevertheless, I think if we look with patience and intelligence at what went on in the past, we can find something to guide us. I would direct your attention particularly to the successful small firm such as I have already described to you.

First, I suggest to you that in all the successful small businesses of the past — and these small businesses were the ones that made the nation great — the guiding spirit in human relations, as in all other aspects of the business, was at the top. The business was managed as a unit, both the economic aim and "the society."

Now, in many of the large-scale operations of the present day the guiding spirit seems to reside in the stratosphere, surrounded by the cold of space and by the economic abstractions with which the business aspects of the enterprise can be controlled. If this is true, the guiding spirit is now divorced

from "the society" which it is his business to guide, and my very limited experience leads me to this conclusion. I find the guiding spirit of these great enterprises living largely in a world of abstractions, from which he is unwilling — perhaps unable — to come down. The climate of the street is very different from the climate of the stratosphere. Reality is very different from abstraction.

No one can blame men who live in a world of abstractions for shrinking from the brutal realities of life. I shrink from these realities myself, and I blame no one for shrinking from them also. Nevertheless, if these great men who are now the guiding spirits of these great enterprises are not able to come down into the street and walk among the realities of life like other men, it will be impossible to manage these large enterprises as a unit.

This was the most important reason for the success of the small enterprises of the past; namely, that they were managed as a whole, and I find myself unwilling to believe that we can separate "the society" and the economic aim without destroying both. At present, we do not know how to deal with our social problems on the large scale represented by these great firms. The separation between the economic aim and "the society" is natural, perhaps, but it is abnormal. It cannot long continue, and I suggest to you that the great problem which faces all of us is how to solve the social problems of large-scale business without resorting to abstractions.

The problems of a society of fifty thousand or a hundred thousand persons are perhaps the same as the problems of a society of a hundred persons. But today the great men who guide our large-scale industries have no techniques for dealing with the enormous numbers of people who compose the societies which they lead. While admitting that the problem which faces these men is a problem to daunt the boldest, I am

not prepared to admit that the problems cannot be solved. I believe that they can.

THE LINE ORGANIZATION; A VITAL LINK

I close with a practical suggestion which is perhaps outside my field, but I give it to you for what it is worth. The conflict between line and staff organizations is perhaps as old as history, and I observe it going on in the large organizations to which I have referred. There seems to be a tendency to train the line organization to deal exclusively with the economic aim, and to develop staff departments to deal with the social problems of the industry. I think such a division of authority will prove fatal.

The acid test of the strength of a business organization is the strength of the line, and, unless the line organization is trained not only to use economic tools — such as costs, budgets, etc. — but also to deal effectively with all the problems connected with the management of men and women, it cannot be said to be adequately trained for its task. It seems to me futile to train a line organization to deal with technical problems and leave the social problems to take care of themselves. It is just as important that a foreman should be held responsible for the men and women under his supervision as for the tools and machinery in his department and the cost of keeping them in repair.

I do not see how the guiding spirit at the top of these great enterprises can guide unless he has a well-trained line organization which is constantly transmitting information in regard to the men and women at the bottom of the organization, in whom authority resides in the last analysis. Our organization charts have sometimes led us to believe that authority was at the top, but this I believe to be a confusion of mind. In an industrial organization, as in an army, authority resides at the bottom, although the *positions* of author-

ity are at the top. No military commander will ever issue an order unless he knows that it will be obeyed, and this is equally true of an experienced industrial leader.

I repeat, authority resides at the bottom, and it is impossible for the guiding spirit to arrive at any important decision, or issue any significant order, without intimate knowledge of the feelings of the men and women who form the rank and file of his organization. There is, in my judgment, no way in which he can get this information except through his line organization. In the past, as I have said, line organizations have not been adequately trained for this part of the work, but, if these great organizations are to live, the line organization must be brought to the highest degree of expertness in dealing with these problems. Otherwise, success is impossible.

I have suggested to you that what we need most today is a line of communication from the bottom to the top of the organization. This may be a new conception for some people, but it is as old as the race. Our problem is really the perfecting of social inventions and new social techniques so that this line of communication will work as efficiently as the network of communication spread over the nation by the Bell Telephone System. As and when this system of communication is perfected within our great business organizations, the social problems which today plague us so much will gradually fade away.

TEN YEARS OF DEPRESSION

The Shadow and the Substance*

THE SHADOW

FOR hard upon ten years we have lived in the shadow of industrial depression, varied from time to time by panics and by short-lived recovery. The experience of panic, followed by a period of economic contraction, lasting from one to five years, is perfectly familiar to us. Our pet name for these fluctuations is "the business cycle," and we have come to regard them as a natural phenomenon, like the seasons of the year. But the experience of the last ten years is, I believe, new in this country. This depression has already run to twice the length of its most severe predecessor, and still there is no light on the horizon.

Also, we may note that our situation seems to be worse than that of others. Although we possess the greatest natural resources of any nation in the world, protected by two oceans, the index of production of our growing population in 1938 as compared with 1929 stands at the bottom of the scale of North American and European nations. Ours was 72 per cent, while poor France, with a declining population, threatened with war and rent with internal dissension, was 77 per cent. Canada and the Netherlands stood at 90 per cent; the United Kingdom at 116 per cent; Poland at 117 per cent; Norway

* An address delivered before the Alumni of the Harvard Graduate School of Business Administration on June 17, 1939.

at 127 per cent; Denmark at 135 per cent; Sweden at 146 per cent; and little Finland at 153 per cent.¹ (I have omitted Germany and Italy from the list because the dominant factor of armament might distort the figures.) Incredible as it may seem, the shadow of depression which hangs over this unthreatened country is heavier than that which hangs over European nations, which may be on the verge of war. The strangeness of this picture makes me wonder whether it is a picture of economic depression or of something quite different.

The shadow of depression under which we lie is the major preoccupation of all our people. This is to be expected. As we grow poorer, the shoe pinches every foot. The *symptoms* which we observe are economic — idle men, idle money, idle factories, idle land. It is natural to assume that we are suffering from some economic malady, and accordingly we are deluged with proposals for economic reforms. The number of these proposals is enough to make the strongest head spin. In the confusion, Congress has almost ceased to function, and even President Roosevelt seems for the moment to be a little perplexed.

In the June number of the *Atlantic Monthly*, Mr. Wendell L. Willkie set forth a program for economic recovery. In the March number of *Fortune*, a group of distinguished citizens told us what they thought ought to be done; and Mr. Roosevelt has just asked his Temporary National Economic Committee to answer the same question; and, to make the measure full, you can hardly open your morning paper without seeing an address by some wise and experienced person on this most perplexing question.

I have spoken of "the shadow" under which we rest — or rather squirm — using the word in the sense of the shadow of some *thing*. Of course, the "thing" need not be as tangible as a rock; it may be the shadow of a state of mind. In fact, when

¹ League of Nations, *Monthly Bulletin of Statistics*, vol. XX, 1939, p. 168.

we speak of an economic depression we must be thinking of the shadow of a state of mind, and we commonly make the explicit assumption that this state of mind is due to some defect in the methods of exchange of goods and services within the society which is depressed. *Provided this assumption is correct, economic adjustments will cure the depression; but only upon this assumption.*

In view of the length of this period of depression, and the failure of various economic "medicines" with which the "doctors" have tried to cure it, I suggest that the assumption is not correct. I think these people are barking up the wrong tree. There isn't any coon in it. He may have started up, but he's not up there now. I do not believe that the "thing" which casts this shadow is merely an economic maladjustment. It looks more like a social breakdown. If this is the case, economic remedies may alleviate the symptoms, but they cannot cure the disease. In fact, they may aggravate it. "A higher standard of living," for example, is the economic heaven toward which both economists and politicians gaze. But, as I look back over the last fifty years, I often wonder whether the rapidly rising standard of living, which was its most marked achievement, was a gain or a loss. As our standard of living has risen, our troubles seem to have multiplied. Is it possible that it has risen too high and become "a standard of high living"? Of course, this is a shocking heresy, for which no one else can be held responsible.

In suggesting that the problem which faces us is primarily social, and that economic remedies will not cure it, I am, of course, casting doubt upon what might be called the "economic interpretation of history." History has often been interpreted in this way in the past. The great Karl Marx built his whole system on this foundation. He was perhaps the most thoroughgoing of this school of thought; in fact, so thorough that for fifty years no one had the courage to put his theories

to the test. But when this was finally done by the Russian revolutionists, they broke down so completely that there are probably more followers of Karl Marx in the United States than in Russia today. Practical experience is the acid test of this theory, as of all others. The strictly economic interpretation of history has failed to meet it.

In substituting the assumption that "the thing" which throws this shadow is a social breakdown, and not an economic maladjustment, I am merely offering an opinion not susceptible of proof. But, for that matter, neither are the economic theories which are so vigorously thrust upon us.

THE SUBSTANCE

Bluntly, what I ask you to believe is that the serious disorders in our society are the most important reasons for our inability to rise out of this depression. I am not suggesting that the social and economic aspects of human life are independent. On the contrary, they are parts of one whole. What I *am* suggesting is the unwisdom of the gross overemphasis now placed on the economic aspects. While I cannot prove the truth of my opinions, I can at least suggest some of the grounds for them.

Assuming that "the business cycle" will continue to plague us for a long time to come, I ask you to notice what occurs to the structure of our society during a period of severe and prolonged industrial decline. What we see is a small fraction of the population unaffected, either socially or economically. Another fraction — perhaps somewhat larger — is subjected to some economic loss, but no loss of social status. Another fraction — much larger — is subjected to severe economic strain and to the daily fear of economic destitution and loss of social status. The balance of our whole society is "on the bread line." In short, the economic forces of a major depression now tear apart our social structure, forcing half the

population — the foundation upon which the other half rests — to face the possibility of economic and social disaster. It seems to me incredible that any society subject to this sort of periodic disruption should function satisfactorily. The wonder is that it functions at all. We might as well ask a man with a broken leg to run.

My reference to the loss of social status — or the fear of it — which threatens so large a fraction of our population during a major economic depression may require some explanation, because it is a relatively new phenomenon in this country. It did not occur to at all the same degree after the panic of 1893, which ushered in our previous major depression, because two-thirds of the population were farmers, firmly rooted in the soil. Within the relatively short period between 1898 and the present day, the operation of economic forces resulting from new inventions has changed our environment so rapidly as to require a new form of social structure to fit it. We are now, I think, in process of building one. Fifty years ago the home, the church, and the neighborhood were the framework of our society. Today, new inventions, like telephones, radios, movies, automobiles — to which we have not yet become adjusted — have greatly weakened all these social forms, so that now the most permanent and the most important social groups known to me are those in the shop and in the factory, based on work routines. Here, if anywhere, I suggest, the great mass of our working population must satisfy most of its need for normal social intercourse, or go without, and I like to believe that the social disorder in which we live is the result of shifting from one form of social structure to another. While the house is being rebuilt we must expect hunger, exposure, and fatigue. If only the new structure is good, we shall have nothing to complain about. But let us not soothe ourselves with the illusion that the changes which are taking place are small. They are radical. We are asked to

move out of our old homes into our new factories. Let us hope that we shall find them equipped with "modern social conveniences." At present, these are notably absent. What I observe is that within a short half-century the center of gravity of our social system has been shifted. The process is not complete, and it is for this reason that the breaking of the social fabric by industrial depression makes recovery so difficult. When industry breaks down, our society goes with it.

I have been interested to observe that labor leaders, and labor economists, with whom I have talked were wholly unimpressed by the ideas suggested above; namely, that the factory and the shop are in their essence social groups, or societies, today. This I confess disappointed me until I noticed that their own arguments in favor of collective bargaining rested upon the premise that this method was essential to the maintenance of the civic rights of workers and therefore to the preservation of democracy. Thus, even for these men, economic needs give way before our social needs, and they admit by implication the proposition for which I contend. Then I see that we are all "shooting at the same target" and merely calling it by different names.

Assuming that the welfare of society is the purpose and goal of human endeavor, and industry only a means to that end, the conclusion is inevitable that society will find a way — in its own good time — to correct those defects in our economic system which experience shows to be socially harmful. Our major problem today is to discover the long-time effects on society of some of our economic techniques. Merely because I do not know the answer to these questions is no reason why I should not be interested in their solution.

I repeat that the shadow of depression under which we lie is the shadow of our social failure. Of course, the necessity of providing for our material wants — which we call "business" is a major part of "the business of life" which is society. Our

economic and social functions are inextricably intertwined, but every structure depends for its stability on a due regard for proportion, and I have a feeling that during my life, and to some extent during my father's, this people has exaggerated the economic aspects of social living. When this occurs, one may look for signs of social disorder. They face us on every hand; and the senseless hurry of modern life is merely our flight from these haunting specters.

A symptom of social disorder which has received less attention than it deserves is the general loss of hope and the slackening of ambition. Our great Secretary of the Treasury has characterized the feeling of business men as a "What's the use?" attitude. In this opinion I concur, but I am moved to wonder why he stopped there, for the same attitude is observable in all classes of our society. It is less than a generation since "piece rates," and other forms of money incentives to workers to increase production, worked. Now they have largely "lost their cunning." Restriction of output can be found on every hand, and the hope or ambition which the various incentive systems formerly aroused in the worker at the bench is waning.

Among the so-called "white-collar workers," there is also evidence of loss of hope, and I am told by competent and interested observers that this feeling is very marked among high-school and college men. Nor does it stop even with them. I know an active boy of rare ability who at the age of ten has practically refused to work, either at school or at home. When asked how he expected to earn his living, he replied that he didn't. W.P.A. "work," as he had observed it, "looked good to him!"

I have spoken about the loss of hope which is so marked in all classes. Its direct manifestation is loss of initiative. For reasons which are very complex, and which are not well understood, the initiative — the intense urge to action — of

this people has been cut off. Where "the spring of action" is located in the human body we do not know, but we do know that it is touched off by emotion — the emotion of hope and the emotion of fear in particular. This nation has for two centuries or more shown amazing initiative, the result of widespread hope. Today that initiative is quenched and the question which we must answer is, Can it be restored? One school of thought answers in the negative, and offers us as a reason that, after three centuries of prodigious expansion, that cycle has come to an end and we must now settle down to a static condition, or at best to a very slowly expanding one. Personally, I reject this answer. It seems to me childish to suppose that the cycle of expansion for this nation is closed, unless we close it by our own lack of imagination. Tradition to the contrary notwithstanding, history never repeats itself. The great opportunities for increased economic activity of the past are unlikely to recur. But there are countless other opportunities. A more plausible and a more manly explanation of this loss of initiative is that it is due to the failure of our social system to function properly, a social breakdown — a society "gone sour," so to speak. Nothing will undermine hope and weaken the springs of action more rapidly, and such a breakdown is just what one would expect to follow from the periodic disruption of our social groups by the forces of the business cycle. When some of the men and women working together in shops and factories are periodically exiled from their society, and when those who are not live in constant fear of it, only a highly optimistic — not to say silly — person would expect to find a happy and hopeful society. The wonder is that things are not far worse. What greater opportunity could be offered to any generation than the opportunity to restore this waning hope and the initiative to which it gave rise?

The election of President Roosevelt in 1932, and his almost

immediate demand for social reforms, were not accidental. They were the result of a great popular reaction against social conditions which were fast becoming intolerable. Many people feel that, while the aims of Mr. Roosevelt's social reforms were wise, his methods have been unwise. I am one of that number. In fact, I go further and suggest that the Federal Government, acting through Congress, cannot achieve by national legislation the social reforms which are most essential. Legislation is merely a form of sweeping generalization. Such generalizations can only be made with full knowledge of facts which are not yet known, and are only useful where the facts, after they have been observed, fall into some sort of pattern. Wide variations from the established pattern make such generalizations impractical. In the case of much of the social legislation attempted by Mr. Roosevelt's administration, these conditions are not fulfilled.

Take, for example, the operation of the Works Progress Administration. This shows quite clearly the effects of federal legislation which practically concentrates in the hands of one man the power to spend billions of dollars of the savings of the nation for the relief of the unemployed. No one questions that these people must be fed, but many question the method used. The first thing to observe is that the operation of the W.P.A. is shrouded in a cloud of mystery which even a committee of Congress has been unable to penetrate. The tenacity with which the Federal Government clings to the principle of centralized administration leads one to suspect that the handling of this money is a source of political power and profit. Certainly, such concentration is very wasteful. These, however, are common symptoms of the way in which our democracy functions and may not be in themselves alarming. The real vices of the W.P.A. method of unemployment relief lie deeper.

Many, probably most, of these unemployed are people who

have been exiled from the industrial or business groups to which they belong by the economic contraction of the last decade, which we may note in passing President Roosevelt has done much to promote. They have been banished from the societies in which they belong, usually without fault of their own, by the operation of "an economic law" which they cannot comprehend, and which many of them do not believe to be a law at all. No Works Progress Administration, even if administered by the Archangel Gabriel, could right these people's wrongs. It can protect them against starvation, but it cannot cure the wounds to their self-respect which their own societies have inflicted. "He who has broken the head must find the plaster." Only the industrial societies which have cast these people out can help them. If these societies are unable to find a way to do this, or unless these outcasts are soon united into new industrial societies, our whole industrial system will collapse, because of its instability.

The W.P.A., however, as now administered, instead of assisting our industrial societies to accomplish this task, is making it more difficult. Although men working for the W.P.A. must live on small pickings, they are nevertheless reluctant to return to private employers because their past experience has taught them to fear the risk. They feel a sense of economic security in working for the government which more than outweighs their loss of self-respect. Of social security, that is, the security of belonging to a social group, the W.P.A. gives them little enough.

Here we may observe a movement of extraordinary interest which has received little attention; namely, a new society in process of trying to get itself born. These people who are working for the W.P.A., feeling the lack of anything that remotely resembles a society in the group thus employed by the government, have apparently taken the work of social integration into their own hands and are forming a social group

of their own — the Workers' Alliance. This W.P.A. "pressure group" is already powerful, and it will grow. Making faces at it, or calling its members "Communists," is childish. We have made them what they are, and if private enterprise in this country cannot give a better account of itself in the future than in the past, it deserves to fail. But such a failure would be a disaster of the first magnitude. It would mean a return to the barbarism which has overrun some of the European nations.

This is not inevitable. In fact, I am convinced that such a collapse can be prevented, but it can only be prevented by the most strenuous exertion on the part of business men. There is small hope that we can be saved by nation-wide activities of the Federal Government, based on political expediency and insufficient knowledge. The problem must be attacked in detail at many different points and in many different ways. No government has ever done this, and no government can do it. This is a task for free men working freely, and, although we have lost much of our freedom, we have enough left if we have the will to use it.

No man is wise enough to lay down a plan of procedure which will solve our problems, because no man has the knowledge. But we have the strongest evidence that the government cannot solve them without destroying the foundations on which it rests. The number of our unemployed has remained practically stationary since 1933, and the pressure group called the Workers' Alliance is a threat growing on government funds.

Our best hope lies in gradual social and economic reforms based on intimate knowledge of the conditions within our thousands of industrial societies. Such knowledge is not now available and it will take time to get it, for we have reason to believe that the social conditions within these societies vary widely — from relative health and happiness at one end of the scale to a condition verging on mutiny at the other. But we

are not sure of our facts. Careful study, pushed with vigor by business men *who mean business*, might open many new vistas. Even with my own extremely limited horizon, I can see industrial societies which during the last twenty years have gone through all the economic vicissitudes of that troubled period. Some of them have maintained their courage, their integrity, and their social equilibrium under the most difficult conditions. Others under far less "stress of weather" have suffered serious social disintegration. We can observe these bald facts, but in the present state of our knowledge we cannot understand them.

Here, I suggest, is where we must begin. What are the reasons why some of these industrial societies are so serene and others so disturbed? If we could answer this one question we should, I believe, have opened the door to the solution of our problem. The work must be undertaken by business men, equipped with the tools of science and endowed with indomitable patience. There is no quick solution, and, even if there were, it might take a generation or two to make it work. For social changes operate on a time scale much slower than the technological changes with which this generation is familiar. It is for this reason that the results we seek cannot be achieved by any government using the democratic process. The politician who lays out plans which may take half a century to complete will lose his head at the next election, and be replaced by a man with a panacea which will "work while you sleep."

Please observe that I am not blaming the politicians, the economists, or anyone else in what I have been saying. It is not for me to make value judgments. But we all know that the trade of the politician in a modern democracy is to get quick results. The business man, however, has been trained in another school. Much of his planning used to be for the coming generation, and, while this is now prevented by the

social revolution through which we are passing, the paths are well marked and he has not lost his skill in following them.

While the recognition of their "social obligations" is now very general among business men, they show a marked preference for keeping these obligations in the realm of abstractions. To induce a large firm to spend a million dollars a year on an advertising program, in the hope of increasing its sales, is relatively simple, though the results are likely to be temporary. But to induce the Board of Directors of the same firm to spend fifty thousand dollars a year on a program of real social research, which would be of permanent value, and might save the business from ruin, is an almost superhuman task.

Of course, there have been many studies of *working groups* made, usually by industrial relations or personnel people, as a basis for executive action about wages or working conditions. They are interesting and valuable, but they will not serve our present purpose. What we need are many studies of *complete* industrial organizations, including every person from the president to the office-boy and the man and woman at the bench. These organizations are organisms like the human body which must be studied as a whole. Studies of their parts are interesting, but they are useless without knowledge of the whole. They are like the reports of the four blind men feeling of the elephant. One got hold of a leg, and said it was a tree. Another put his hands on the elephant's side, and said it was a rock warmed by the sun. Another got hold of the trunk, and said it seemed to be a snake of the boa-constrictor variety. The fourth took a pull at the tail, and when he recovered said it was the lanyard of a cannon, without sound, but with a heavy recoil. Much of our research seems to have begun at the wrong end. We must know more about the whole before we can understand the parts. In my title, "The Shadow and the Substance," I deliberately used the word "shadow" in a double meaning — the shadow which clouds our vision

and the shadow of some material or spiritual reality. As I close I trust that I have made it clear that it is the shadow of social disorganization which is the substance and with which we have to deal. The causes of this social disorganization are too complex for me to understand, but the fact seems to me as plain as a pikestaff. The substance of our social disorganization is proved, both by its shadow, and by many other observations of daily life. In God's name, let us attack this substance with every means in our power before it is too late, and, unless our educational institutions are false to their calling, you will soon find them fighting at your side and supplying recruits to your armies.

AMERICA'S CHALLENGE TO BUSINESS*

THIS is a great occasion, or perhaps I had better say that you have it in your power to make it a great occasion. A critical period in the life of the nation faces us. Great events are in the air. We inherited from our fathers "a nation conceived in liberty and dedicated to the proposition that all men are created equal." World events are moving in a direction which threatens to destroy our inheritance. Every occasion on which earnest and intelligent men, who are willing to face the stern realities which confront us, sit down to consider how to protect and to preserve our great inheritance is a great occasion. Our problem is to find ways and means to adjust our society — this great industrial democracy — to the new conditions which are beginning to envelop us. Failing in this, we shall lose our freedom, which has been the source of our prosperity, and without which life would be of small value.

We stand in the middle of a world at war — a war deliberately aimed at the destruction of human freedom — and we are also passing through a so-called "social revolution" at home. These are stern realities which many seem unwilling to face, but they must be faced if this civilization is to survive.

* An address delivered before the second American Retail Federation Forum on May 17, 1940, Chicago, Illinois.

I say deliberately that many seem unwilling to face reality because I rarely open a newspaper without seeing that some distinguished man has just asserted loudly that this nation must be kept out of war. Such men talk a language which I do not understand. There is no question of *keeping this nation out of war*. We are already in it up to the waist — the whole world is in it. No one can escape. Modern war is not fought with clubs, or even with guns. It is fought with economic weapons — the productive labor of nations, that is — of the whole world. War is the destruction of wealth — the making and destroying of the instruments of war and of the lives of men. We have never had a real peace since the summer of 1914. What we have had since 1918 was an armistice which Russia, Italy, and Germany devoted to preparing for the open conflict which is now upon us. In Asia, Japan has played the same game. This nation will never see a real peace until the nations of the world have renounced force as an instrument of national policy and until the destruction has been repaired. That will take a long time in such a complex world-economy as we have today. And so I repeat, we are now in the war and we shall not soon see the end of it.

For us, the most difficult period of the war may — I believe will — come after another armistice has been declared. The shock of such a “peace” will be terrific, although it may not be immediately felt. No man knows when the actual fighting will stop. But it will stop some day, and then we shall have to count the cost. The destruction will have been staggering — not only in terms of what we commonly call wealth. That may be the smallest item. The great destruction will have been in men killed and maimed and in the souls of men and of societies sent to perdition.

Whether this nation is destined to become *one of the belligerents* and to take an active part in the fighting is relatively unimportant. My personal opinion is that this question

should be answered by the men who will do the fighting, and that men past military age had better keep silent. But whether we become belligerents or not, we are in the war today, and our greatest difficulties will face us when the fighting is over. That is one of the stern realities which confronts us and which we shall do well to heed. Then we must face and share the economic and social destruction resulting from this war, and America's Challenge to Business Men is: How are you going to deal with that problem?

Can we answer that question today? No. We shall never be able to answer it as long as we play the ostrich and bury our heads in the sand. All problems must be stated before they can be solved, and we show a marked unwillingness to face disagreeable facts. That is a common human weakness, but we have no time for such weakness now.

At this point you have the right to ask me what some of these stern realities are, and I must answer according to my lights. Within the time allotted to me I can only suggest some of the more important ones, and those very briefly.

I have named one: (a) *We are at war.*

Going on from there, I note: (b) We have already had ten years of depression, and are beginning the eleventh. The depression began with a financial panic, as these cycles always do, but its duration has been unprecedented. Major depressions in this country have typically lasted *for five years*. On this basis we ought to have begun a vigorous and sustained upward movement in 1934-35. There was improvement, but it was not vigorous, and in 1937 it collapsed. In the summer of 1939, there was another advance, but there is no evidence at hand that it is a vigorous and healthy recovery. It appears to be feeding on war orders, and not doing very well at that.

The evidence of the last ten years forces me to believe that this depression is not like any of its predecessors. The root of this malady is not economic but social.

(c) This brings me to a point which I have touched upon before. It is often said that this nation is passing through "a social revolution." I have no time to quibble about words, but I think the word *revolution* is too strong. "Revolution" suggests explosion, and explosion means destruction. Real social reform — reform of a constructive character — is not accomplished by explosion or revolution. What has been going on in this country for the last eight years is not *social revolution*, but *social evolution* at a very rapid pace. In fact, the pace has been so rapid that it has prolonged our economic depression. That is why we have had ten years of depression instead of five, for in a free society like ours, where recovery depends, *and must depend*, on the individual initiative of business men, such initiative is impossible unless what we may call "the rules of the game" are fixed and known. Business men will take great risks, but they must be able to plan for at least a short period ahead. Some degree of foresight is essential. But there can be no foresight regarding the unknown. During a period of social change so rapid that "the rules of the game" are changed several times a year, *foresight is impossible, and private initiative is hamstrung*. Without the driving force of private initiative, a free society cannot prosper. "A free society" and "private initiative" are in fact merely different aspects of the same thing, and it is clear to me that we must restore the conditions under which private initiative can function or sink into some form of "totalitarian slavery."

All this is obvious enough, and it is our habit to overlook the obvious. But we shall overlook these obvious facts at our peril. Restated very briefly, our situation is this: (1) *We are in a world war*, the most severe shock of which may not strike home to us for several years. (2) Our ability to meet this shock and to adjust ourselves to it is greatly impaired by what is called "a social revolution" at home. While I think the term is too strong, there can be no denying that for a decade our powers

of economic recovery have been brought almost to a standstill by the necessity of social reforms at home. (3) If these conditions are prolonged, our whole social structure — our whole civilization — is threatened. To put it in an exaggerated form, we cannot win a world war while we have civil war at home. (4) It is a matter of the first importance that we reach an agreement on *the fundamentals* of our social philosophy. Until we do, the very foundations on which our industrial democracy rests are unstable. (5) It is not necessary — or even possible — to reach such an agreement in regard to matters of detail. But a broad general agreement, supported by an overwhelming majority, is a condition essential to the survival of a free society. The free societies of Europe have crumbled because they could not reach such an agreement. Even if we were not involved in a world war, a *general agreement on our social philosophy* would be absolutely necessary. The collapse of free societies in other parts of the world merely makes this necessity more urgent. The time within which a general agreement must be reached has been shortened. But do not misunderstand me. I am not suggesting that we can, or should, reach an agreement on our social philosophy which is final and permanent. These “designs for living together” must change and adjust themselves to their economic and social environment. All that I am suggesting is that, threatened with economic disaster as the result of war, we agree upon a temporary social program in order that we may fight our battle successfully.

Considering that we have been fussing with a social program for six or eight years without reaching an agreement, you may think that what I ask you to do is impossible. But I remind you of the proverb, “Needs must when the Devil drives,” and of the remark attributed to a wise man at the Constitutional Convention more than a hundred and fifty years ago, when the life of the nation seemed to hang in the

balance: "Gentlemen, we must all hang together, or we shall all hang separately." We are in much the same case today. Only a united society can win this fight.

My remarks up to this point have been so general that perhaps to many of you they are meaningless. But I remind you that *agreement upon fundamentals* is all that is necessary or possible. We have already been working at the job for some years, and in my view much progress has been made. What we need more than anything else today is to generalize some of the practical ideas on which we have been working and to realize how critical our position is.

Let us never forget that the collapse of free societies is always due to *internal* strains, and that the social problems which plague us in this country are due to that very cause. It is not an accident that social collapse generally follows severe economic scarcity. The reason is obvious. A social system in which poverty can suddenly gobble up one group while leaving another safe and comparatively well-to-do has *small survival value* in these days. It will break like any material substance when it is subjected to a rending strain. No social structure can be regarded as safe which does not rise and fall *as a whole* on the waves of the economic ocean. Some of you have seen the great "can buoys" along our coasts rise and fall in a heavy seaway. They are good examples of the sort of social structures needed to withstand the breakers of the storm which lies before us.

In solving problems of this character, the free society of the United States has had small experience. During the last hundred and fifty years we have lived in a rapidly expanding economy with half a dozen painful but brief interruptions. The period which lies before us will be very different. The disturbed period which began in 1914 is likely to be prolonged. In fact, no man can see the end. We have already had ten years of depression in which a large part of our national sav-

ings have been lost. The end is not in sight. If we are to preserve the forms of a free society handed down to us by our fathers, we must so arrange our internal affairs that economic strains are transmitted equally through the whole structure. Much good work and thought have already been devoted to this aspect of our affairs. If the absolute necessity of agreement on this fundamental principle is understood, this objective can be attained.

There is another aspect of our affairs on which there seems to be great but needless confusion. *By definition*, a free society — democracy, republic — call it what you will — *is the master*. The two servants who do its work are government and business. The society lays down the rules under which each shall function and must see that the rules are obeyed and the work done. These servants, however, like other servants, are sometimes lazy and sometimes inefficient, but the worst fault of both is that they sometimes forget that they are servants and think they are masters. Even within my life, I have seen both business and government commit this sin, *and in Europe the sin is now glorified as a virtue*. But let no one deceive you. When either business or government usurps the sovereign powers of the people, it has violated the most sacred principle of a free society. These two servants must work together under the master's eye.

Of late years they have not done so. Take the problem of unemployment, for example. The solution of it has been taken over by government, although, if history teaches anything, it teaches that no government acting independently has ever succeeded in this task. The Roman Empire tried to solve its problem of unemployment by a great program of public works, and the great historian Ferrero tells us that you can measure the decline of the Roman Empire by the magnitude of its public works. Other dictatorships have solved their problem of unemployment by vast preparations for war,

which greatly impoverish the nation and produce the world of violence in which we live. The only remaining method is what we call "the dole," which keeps the unemployed from starving, but weakens their morale.

And so I repeat, no government can successfully solve the problem of unemployment. The only remedy is productive work, which government in a free society cannot provide. Today the nation is being crushed by a burden of unemployment, partly the result of government activities, and the government, having, as I have said, hamstrung private initiative, is accusing business of failing to cooperate.

To such a pass are we reduced when the two servants of our society quarrel. The thing must be stopped. Our problem of unemployment can never be solved until government and business cooperate in the work. The task is not impossible and it must be done. One or two private individuals have offered tentative plans, but they have received scant attention. It is time that they did, for the problem must be solved.

You may think that I have drawn a depressing picture of the present, made impossible demands upon the future, and that the task is hopeless. But it is not so. The most I can concede is that for an older and less flexible people the task might be hopeless — but not for us. For the young, danger is a tonic, and we make progress by achieving the impossible. We have been fed on a too sentimental diet. We need the bright face of danger to stimulate in us the degree of effort which this crisis demands. We must develop a degree of co-operative effort which we have not previously shown, and we must prove to ourselves and to the world that the self-discipline of a society of free men is more effective and more enduring than the discipline of fear imposed by dictators. Our greatest danger may well be lack of confidence in ourselves. Fear is a corroding emotion, and those "who take counsel of their fears" get bad advice.

I am not competent to advise business men, but I suggest that, in exercising the self-discipline which will be required, you ask yourselves two questions before refusing any demand that is made upon you: (1) Will this change tend to unite the Great Society which I serve; that is, will it tend to make men more free? and (2) Will it tend to increase the production of the whole society? If the answer to both questions is Yes, beware how you refuse.

The task which has been set us is terribly difficult, but it is not impossible unless we overestimate the time allotted to us, and underestimate the dangers which threaten us. The time is short and the danger great — *in fact, the greatest*. It is the danger that *persuasion*, which has been slowly displacing *force* for more than two thousand years, will be swept away — that we shall revert to a world of violence, and bequeath a world of violence to our children. It's not good enough. We can give them something better, and we must.

THE CRISIS WHICH CONFRONTS THE NATION *

IN THE course of a brief, informal address it is impossible to cover this topic completely. You will not expect me to. All I shall attempt is to touch one or two points which, I think, have not received enough attention.

But first let me clear the ground of one obstacle. There are those — some of them in our national councils — who say “there is no Crisis,” and that those who talk of one are trying to produce hysteria. There is a common name for talk like that; we call it “bunk.” But, after listening to it, I think the proper name is “funk.” These men are cowards at heart, who do not dare to face the tragic facts. Fortunately, the number of them is small, and we can sweep them away into the limbo of harmless folly.

Let there be no mistake. This Crisis is real. We stand face to face with war, and we are unprepared. Just what, however, is the nature of the threat? We must be clear on that point before we can prepare — for there can be no foresight regarding the unknown. The common answer to this question is that this hemisphere is threatened with armed violence by the totalitarian states of Europe and Asia. This danger exists. Hitler has told us that he intends to destroy us, and he will do

* An informal address delivered before the International Business Machines Club at Endicott, New York, on October 8, 1940.

it if he can. The form of slavery which he has imposed on Europe cannot live in the same world with our free society, and he knows it. One of them must be destroyed.

Against this form of attack the proper defense is planes, ships, guns, and trained men; in short, old-fashioned war. Our Defense Program aims at this target. But we find here, I think, a "confusion of words" which is far more fatal than confusion of mind, because it is more contagious.

What exactly do we mean by "war"? Most people seem to mean dropping bombs, shooting off guns, and killing men's bodies. In the "world that has passed," that was the proper use of the word "war" — that was war in a world of peace. But today we do not live in a world of peace. We live in a world of violence — scientific violence more brutal than the world has ever known. All standards of honor and decency have been cast aside. "Shoot first and find an excuse later" — that is the motto of the totalitarian states.

The war in which we are now involved is not war of the conventional type. I say "involved" advisedly because our national leaders, and most of their followers, are crying "Keep us out of war!" That phrase has no meaning today. We are at war. We have been at war for years, and it will be long before we are at peace.

This confusion of words is made worse by our habit of calling the dictators of Europe and Asia "gangsters." The confusion is appalling. We are not at war with individuals, and we never shall be. Individuals may be gangsters, but not nations. Hitler may be a gangster, but not Germany. Stalin may be a gangster, but not Russia. Mussolini may be a gangster, but not Italy. The army and navy chiefs of Japan may be gangsters, but not Japan. The notion is preposterous. "You cannot indict a whole nation." It is at this point that our "confusion of words" leads us astray. Gangsters can make war by shooting — they commonly do. But nations

must carry on war by faith. The international gangsters in this case did start the *shooting*, but they did not start the war. The war started long before the shooting. It started with internal revolution in each nation — with a radical change of belief — a new social faith.

In short, this is a religious war. Communism is a religion. Fascism is a religion. Naziism is a religion. You may believe that these religions are false, brutal; in fact, not religions at all, in our sense of the word. I do. But there is no denying the fact that they inspire their followers with fanatical zeal. They will die for their faith. All these religions are bitterly hostile to us. Communism declared war on us, and everything we hold sacred, more than twenty years ago. Fascism did the same when it came to power fifteen years ago. Naziism followed about seven years ago. Believers in these religions are sworn to destroy us. This is the sort of war in which we are engaged, and we shall do well to remember that religious wars are likely to be bitter and long. For even a religion as brutal as Naziism is capable of raising a nation to the point of heroism under fanatical leadership. Whole nations are infected with fanaticism.

As matters stand today, we are at a disadvantage in the face of these fanatics. The cornerstone of our social structure is freedom of worship — which is, of course, anathema to all these peoples, because it would destroy their unity. We have exercised that freedom and we are divided into many sects, which are often more zealous in debating their differences than in promoting the common doctrines of the Christianity which all profess. In the face of the united fanaticism of our enemies in Europe and in Asia, we are hesitant and confused.

My answer, then, to the question, "What is the nature of the threat?" is: "It is not a threat, but a fact." "We are now engaged in a religious war, which may lead to a shooting war at any moment."

I cannot, however, honestly leave it at that. I must face the question of how we should defend ourselves. It is commonly assumed that this must be done in the conventional way. "The Defense Program" is the answer — "only hurry up about it."

This attitude also indicates confusion. We are at war — we have been at war for years — and we are practically defenseless. It doesn't make sense! We are told that the Administration has seen the danger for years and done nothing. Again, it doesn't make sense! Mr. Willkie says that this shows administrative incompetence. I happen to be a Willkie man, but I think he is wrong. He has committed the unpardonable sin, in dealing with social and political problems, of oversimplification. He has omitted an indispensable factor. Three years ago — two years ago — even one year ago — the American people would not have supported a real defense program. In any free society — especially in a republic like ours — the leader cannot go far in advance of his followers. The followers to a considerable extent control the leader. If he gets too far ahead of them, he ceases to be a leader and becomes a rebel. We shall do well to remember the patience with which one of our greatest political leaders — Abraham Lincoln — withheld for months his Emancipation Proclamation, until the people were ready for it. Our republic has great potential strength, but we must not forget its weaknesses. One of our greatest weaknesses is lack of unity. No free society like ours can act with power unless it is united in a common purpose. Today, we stand disunited in the face of our enemies, who are united by a fanatical religious zeal. It is beside the point to proclaim that this zeal is degraded and degrading. The point is that it does unite.

Looked at from this point of view, what shall we say of our Defense Program as it now stands before the nation? This is no time for humility! "We should speak our minds without

fear or favor," and so I say that our present program of national defense is superficial. No one can deny that we need several million men, trained in the techniques of modern war — both by land and sea — and mechanical equipment for their use, which will cost tens of billions in money and several years to produce. But this is only the superstructure of national defense, and it will be worthless unless it rests on the foundation of a united and aroused people, working together for a great end. We have not got this today and, until we have, our defense activities will falter and may fail.

At the risk of tiring you, I repeat, this is a religious war. The religion of the Germans, which appears to consist in the worship of Hitler, a man mad with the lust for power, may seem to you brutal and pagan. It does to me. It certainly is a reversion to religious forms antedating the Christian Era. But the fact remains that these Germans will die gladly for their faith. Are we willing to die for ours? What is our Gospel of Freedom? Have we a religion in the sense that the Nazis have? If you can answer all these questions in the affirmative and *make it stick*, our problem of national defense is solved. But no honest man can say that it is. The real solution of our problem still lies in the future.

There are, however, some things we do know which it may be useful to remember. Until a man has something to die for he cannot have much to live for. The civil liberties which you enjoy — including freedom of worship — took centuries of labor and the blood of millions to win. Unless our faith in them is worth dying for, we can hardly claim to have a religion; for these liberties are the children of the Christian faith. In the past, that faith has been dauntless. I remind you of a saying of Rudyard Kipling: "There is nothing more terrible in action than a gang of desperadoes" — here read "Germans" — "led by young aristocrats" — here read "Nazis" — "except a regiment of Scotch Presbyterians, rising

from their knees to execute the will of God." We had such a faith once. We do not have it now. Can we have it again? It is for you — not for me — to answer that question.

But I venture to throw out this suggestion. In a religious war, you might expect the Church to lead. This hope will not be fulfilled. It has not been true in Europe or Asia, and it is very improbable in America. Obviously, what we need is a revitalizing of our faith — in short, religious reform — and you will search your history in vain for a reform of any great social institution which came from the inside. Such work is always done by outsiders. In what group, then, will the new religious movement arise which is necessary for our salvation? Guessing is a hazardous business, but, if I were forced to answer this question, I should guess that it would come out of the great body of scientific and business men who are — and must ever be — the national leaders of a free industrial society.

No man can tell whether the movement will grow and the leaders appear fast enough to save the civilization of the North American Continent, which is now perhaps the only remaining hope of the civilized world — except heroic England, clinging with her teeth to what is left of the great civilization of Europe. But there are hopeful signs. The moral tone of business has risen more in the last decade of depression than during the previous fifty years — truly an astonishing fact, if you will observe that this is in fact a religious movement. There is much evidence that these business, professional, and scientific men — commonly called irreligious — have in fact started a religious movement and that we are now well advanced in a New Reformation.

And so I close with the remark that if you really want to preserve the freedoms handed down to you by your forefathers — if you really want true freedom, as distinguished from license — if you want to preserve western civilization —

the opportunity has been given to you. It is a great opportunity — perhaps the greatest ever offered to a generation of men. But it will cost you dear. You must be prepared to give your lives for it, and many of you will fall. For my part I cannot imagine a better fate.

WILL THE SLEEPER WAKE? *

MY SUBJECT this morning is put in the form of a question and the answer seems quite simple. "Will the Sleeper Wake?" Of course, he will! He always has! Yes, he always has and he will again, unless he dies in his sleep. Old people do die in their sleep quite often in these days of rapid change and high pressure, and old societies oftener still. Most people would be angry, I fancy, if I were to suggest that this country — "the young republic of the West" — was not really young — was in fact showing signs of age, and might be going to die. But that is exactly what I do mean to suggest because I want to set you thinking — thinking very hard about the present condition of our social organization — what our great-grand-fathers used to call "the State of the Nation."

If we are honest with ourselves, we must admit that our society "is not looking its best." It is looking pretty old. It shows signs of decay — signs of what in humans we call hardening of the arteries and a weakened heart. In humans, this condition shows itself in the inability of the heart to adjust itself automatically to sudden changes — like running for a train, immersion in icy water, or exposure to a very cold wind. If we look carefully, and are honest with ourselves, we must

* An informal address delivered at The New England Conference on National Defense, February 15, 1941.

admit, I think, that the Great Society which we love, and call the United States, shows — and has shown for many years — the same sort of inability to adjust itself to rapid change. In our innocence, we still think of ourselves as young, forgetting that the age of a society is not measured in years, but by adjustment to change. It is no exaggeration to say, I think, that the last hundred and fifty years, if measured by the degree of change, is longer than five thousand years before the Christian Era, so that the failure of our society to make the necessary adjustments is not surprising.

Whether that society will survive — that is, whether it will wake from its present lethargy — no man can tell. But social bodies have this striking advantage over the human body: they can be rejuvenated — they can be born again, like the human spirit. And we know what has caused the aging and the death of other societies. The short name for it is Illusion — the obstinate clinging to the shadow, or the ghost, of social institutions which are dead — the refusal to face reality.

Examine the private lives of the aristocracy, or governing class, in the Roman Empire of the fourth century, in England in the middle of the seventeenth, in France at the end of the eighteenth, and you will see a society dying in the embrace of illusion, clinging, as addicts always do, to the drug that soothes and kills.

The antidote to that drug is realism — the resolute facing of the naked truth. It may be hard, but it is bracing — like the northwest wind from our New England hills in winter. I repeat, it will be hard, for many of our people — perhaps most of them — must be clinging to illusion. Otherwise, it would be impossible for the State of Massachusetts to have two Senators such as we have today in Washington — both living in a world of illusion and refusing to face reality, even though the nation perish.

These are strong words, and you have a right to ask me to

say what we can do about it; what illusions we must banish and what realities we must face. It is a large order, and my capacity and my time are limited. But I will offer for your consideration a few suggestions.

I. "THE RETURN TO NORMALCY"

I would put first the illusion that we can return to the "good old times." As a matter of fact, the old times were not very good and we cannot go back to them, if we would. The center of gravity of our world has shifted and, as Dr. Whitehead said in the address which I used to introduce Dr. Pettee, "Something has come to an end . . . What has come to an end is a mode of sociological functioning"; in short, a form of society is dead. We cannot bring the dead to life. What is dead is dead. We live in a world in which the door shuts behind us at every step. A society must go forward or die. But the road ahead is always open. "Something has come to an end," but something also has been born. Our world is a seamless fabric. There is no end. But — as always — before the new day has fully dawned, we grope in the mist. We cannot see clearly where we are or where we are going. That is perfectly normal and need frighten no one. We must feel our way cautiously, but with a good heart.

II. THE WORLD OF PEACE AND THE WORLD OF VIOLENCE

Perhaps as a part of this illusion we find many clinging to the notion that here in America we are still living in a world of peace. No illusion could be more dangerous. We *have* lived in a world of peace for more than a hundred years — with only two breaks — the Civil War and the First World War. The Civil War set in motion great social forces which we did not see or understand — forces which totally changed the en-

vironment in which our Great Society lives, and to which most men were blind.

The second break in our world of peace was World War I, which — had we known it — was the reward of our failure — of our blindness — of our illusion. From 1920 to 1930, we prattled about “the return to normalcy,” because we did not dare to face the fact that “something has come to an end.” That illusion has already cost us dear. It has cost us ten years of devastating depression, in which a large fraction of our national wealth has been washed away, and it has caused something worse. It has caused us to harbor illusions about what has been going on abroad which completely blinded us to the fact that we were helping to produce a world revolution. That is the price of using the drug of illusion, and the price will be heavy before the last farthing has been paid. For the plain fact is that we have helped to destroy a world in which persuasion was slowly making headway against force — a world of relative peace. We must now face the reality — a world of violence — where might is right — where persuasion seems both futile and foolish — a world of violence more brutal than we have ever conceived.

Do not misunderstand me. I am not suggesting that we have wanted a world of violence, or tried to produce one. That has been done by others. But there is no denying the fact that we are surrounded by violence, both on the east and on the west. We are in the midst of a world revolution which we cannot now turn back. Time was — not so many years ago — when we could have lent a helping hand to prevent this. We might have had world evolution, instead of world revolution, if we had had the wit and the will. But today we have no choice. The only question that remains open is whether we choose to cling to our illusions until they produce revolution here.

My point is that we are still half-asleep — drowsing in the

illusions of a past that has vanished and refusing to look into the stern face of a reality which is here.

Now, I should be the last to underrate the difficulty of the readjustment from a world of peace to a world of violence for people who have never faced this naked reality. The process is exquisitely painful — it takes time, and for many it may be impossible. There are probably very few men in this room who have ever had the experience or have ever seen violence in action. We have lived in a sheltered world, and to deal successfully with the reality which confronts us will take courage, imagination, and also time. Men cannot be reconditioned in a day, and men rarely make the effort except in the face of death.

This I know from my own experience. I saw "the West" when it was literally governed by "the frontier Colt," and I have seen some of the flower of our Eastern blood fail repeatedly "to beat a Westerner to the draw." All of you have read the Western stories, where the hero always beats the villain "to the draw." Well, it wasn't like that. The villain usually beat the hero — and for a good reason. But probably few of you know by actual experience the value of the split second which makes the difference between the intuitive reflex of the man born and bred in a world of violence and the conscious action of the man bred in a world of peace. Very few Easterners ever overcame that handicap.

My English friends have always been horrified by the violence of our western frontier a generation ago. But these "desperadoes" were gentlemen compared with the men who rule Europe and Asia today. They had a code of honor, the breach of which meant death. To kill an armed man in a barroom scuffle merely meant that "Red had beat Sandy to the draw," but to shoot an unarmed man was like stealing a horse. The penalty was death.

Our western frontier from 1875 to 1895 was a world of vio-

lence, to which it took time and the right temperament to adjust. The forces of Nature when she is angry are also violent and ruthless, and the city-bred man finds the same difficulty of adjustment. Few achieve it. A few, like Leonidas Hubbard, a brave city-bred man at Northwest River forty years ago, are wiped out, and the rest retire in disorder to recount the tales of their sufferings and their heroism to their admiring women-folk. Of the world of Nature when she is angry I have some knowledge. She has chewed me up a little, but I love her, and I know that — like the western frontier — those who understand and obey her laws come off unscathed and wise.

My point is that in a world of violence bluffing won't work. You just can't bluff a blizzard or a frontier Colt. You'll never try it but once, and therefore people who live *in a world of violence* — natural or man-made — *are realists*. If not, *they don't live*.

This is not true in a world of peace. Peace fosters illusion. I and my generation have lived largely by illusion, and the boys here do it still. But we are near the end of that road. We must now be realists or take the consequences. Death will be one of the easiest; the loss of our heritage of freedom is the worst.

I say we must be realists. What realities have we failed to face? It is a large order, but I can name a few.

Even at the risk of boring you, I repeat, as our Number One reality, that we are now living in a world of violence — a world where persuasion has given way to force. For twenty-five hundred years persuasion seemed to be slowly gaining ground. Now it is in eclipse. That is a reality we have not faced. This nation does not believe it. We see violence abroad and *fear it will come here*, but we do not realize that it *is* here — that it surrounds us. We still have the fatal "spectator complex" — we are still "sitting in the grandstand watching a game of war." This is illusion. We are at war. *We are in the*

game — but we are physically and spiritually unprepared. “All Aid Short of War!” An illusion. We are in the war now. Declarations of war are obsolete. We shall be attacked when our enemies choose — with the weapons they choose. I happen to believe that the attack has begun already — an internal attack — *civil war of which we are unaware*. At present, our position is fatally weak because we have left the initiative to others and we cannot recapture the initiative because we lack unity. We are not coordinated. We are like the Easterner “reaching for his gun and beaten to the draw.” A negative or defensive position is always weak. We must have a positive faith to fight for — if necessary, to die for. We glorify democracy and at the same time nullify it. Congress has taken longer to debate the so-called “Lease-Lend Bill” (H.R. 1776) than it took Hitler to overrun Holland, Belgium, and France. A small group of senators has hamstrung the Government of the United States. The democratic process means the right of debate, but, if debate paralyzes action, democracy has failed. We are perilously near that point today and we are there because we cling to illusion. To survive in a world of violence, we must be made of harder stuff. Today, we are disunited and feeble because we have no social program on which we can unite. We still cling to the illusion of safety. We have not faced reality. I am not going on to propose a social program — a program of reform — I am merely stating what I believe to be a fact. We are not realists on this point.

III. THE IRREPRESSIBLE CONFLICT FREEDOM OR SLAVERY OF THE MIND

Millions — perhaps a majority — of our people do not seem to believe in freedom of the mind. They do not want to assume the burden of freedom, which is really the burden of Christianity. The burden of making up your mind, and taking

the consequences, is a terrible burden. Does this people want it, and are they willing to take the consequences? Some do; but how many? We do not know today. We have not dared to ask. We have not faced that reality. It is time we did. Do we really want a free society, and have we the guts to make it work? In a world of violence, someone will answer that question for us if we don't answer it for ourselves. Up to this time, too many of us have looked at it and turned away.

IV. OUR WEAKENING SOCIAL DISCIPLINE

This is closely related to my third point. During the last century our economic system has become infinitely complex. A hundred years ago seventy-five per cent of our people lived on the land, or on the sea. They were realists because otherwise they could not live. Only twenty-five per cent were industrial workers. Now the ratio is reversed — seventy-five per cent are industrial workers. We have never really faced the consequences of this change. It not only complicates all our social and economic problems enormously, but it weakens our capacity to deal with them.

(a) Seventy-five per cent of our people are cut off from the world of nature — their lives are artificial — almost unreal. Illusion is very easy. This is a change of environment which must have profoundly affected character. But we seem incurious as to how and how much. My guess is that the change is very radical.

(b) Our economic system operates as a tool to disrupt our society. Frequent and violent fluctuations in the market now tend to destroy the social life of the worker. He is periodically exiled from his industrial society and put "on the bread line," or on some government job — almost as demoralizing. We seem to have forgotten what older societies knew — the terrible effect of exile — and, to make matters worse, we are still

using the jargon of an economic theory which represented the realities of society more than a hundred and fifty years ago. Science and invention have so completely changed the world in which we live today that that old society has vanished, and much of the economic theory which explained the working of that society is pure illusion. I am inclined to think that during my life economists and their economic theories have done more harm than good. Today, they represent a mass of dangerous illusions.

(c) Even at its best, our industrial system is so complex as to require a high degree of social discipline. Today the degree of cooperative effort essential to the smooth working of our economy is without parallel in history. Such cooperative effort presupposes long social conditioning and great social discipline. But for more than half a century our society has been disintegrating, and the discipline imposed by society upon its members has been declining, so that today our social discipline is lower in this highly complex organization than in the most primitive societies I have ever seen.

Up to this time we have failed to provide that degree of discipline which is essential to our form of industrial society. We claim rights, but reject duties. The thing is preposterous! There can be no right which is not founded on a duty. "You cannot cut off anything so thin as to leave it bottomless." However small the rights you claim, there is always a duty attached. No society — free or slave — can avoid the operation of this natural law.

I suggest to you that here is a reality — a natural law — which we have not faced. Our social order — or disorder — that is, our capacity for cooperation — is an entirely inadequate foundation for the superstructure of industrial economy which we have built upon it. Either the superstructure will fall or we must strengthen the foundation, and do it soon!

Is what we see going on in Europe a strengthening of social

discipline? It looks like it. But, if so, remember this: a free society requires far more discipline and self-control than a dictatorship. Have we faced that reality?

Although it must long have been evident to trained and intelligent observers that a quality of social discipline not required in the past was essential to the successful operation of an industrial democracy, it is fair to say, I think, that as a whole our people not only do not realize this but would categorically deny it. Otherwise, it is impossible to explain the very rapid decline in social discipline during the last forty years, while our economic and industrial systems were becoming more complex. People do not relax their vigilance at exactly the time when *they know* it to be most needful. *We have not faced that reality.*

V. THE SAVINGS OF THE PAST

But this is not the worst. Coming at the end of ten years of depression, which has eaten up a large fraction of the savings of the past, the world revolution which now surrounds us bids fair to finish the job. Europe and Asia are already bankrupt — Africa and South America seem headed for the rocks — and it must be highly doubtful to the most hopeful observer whether much will remain of the savings of North America when the next “armed truce” is declared. One can hardly explain the universal fear of a Hitler-dominated world except upon this assumption. It is not so much Hitler that we fear as the poverty which he is producing, and will produce. As so often happens, we are probably giving the right answer and the wrong reason.

Critics of Mr. Roosevelt's policy of “Aid to Britain” say that he has whipped the nation into a panic about nothing. This is not true, for even the markets indicate that the nation is in a very sober mood. Whatever the issue of the war, the nation has reason to be sober, for if we “do not face the music”

pretty soon, we shall face the next depression with an impoverished and undisciplined people. We know all too well what lies at the end of that road — social collapse; and, as we have seen in most of the states of Europe, social collapse means dictatorship. We are all too apt to think of dictators as devils, while in fact they are merely symptoms of a Law of Nature. "Nature abhors a vacuum" and, therefore, when a society collapses from lack of social discipline, she provides a dictator to restore order. We take them much too personally. They seem to be the necessary result of national poverty, combined with social disintegration. Under such circumstances, order must be restored and dictatorship is the easiest way to do it. As the standard of living of a nation is forced down by economic disorder, it takes more force than is consistent with a free society to do the job, unless social discipline is very high.

In England at this moment the standard of social discipline seems adequate to the task. It is almost a miracle, and the reason why I want England to win this war is because her social discipline is so marvelous. If this standard should vanish from the earth, it would go hard with our free society here. For it is folly to take refuge in illusion. Our standard of social discipline today is *not* equal to the task which we have before us. We stand here in a world of violence, surrounded by war on both sides, and feverishly trying to arm ourselves. We are spending tens of billions to arm Great Britain and to arm ourselves and, at the same time, we are wasting billions on frivolity. This is not the conduct of a disciplined people preparing to defend itself. The lack of social discipline — the lack of the will and the skill to cooperate — in this country at this moment is an ominous reality. Have we faced it?

I have suggested the possibility that as a result of this war our savings from the past may be wiped out. For an undisciplined people, this would be an appalling disaster; but, for

a people with a social system well adjusted to their industrial techniques, it is no great matter. It might even prove a blessing. Of course some individuals would suffer, but the society *as a whole* might even benefit, because many of the drones would be removed from the hive.

The issue between success and failure depends upon the adjustment of our social and economic systems, and to that major problem we have as yet given insufficient attention. So far as we have given it any attention at all, we seem to have assumed that some minor adjustments in our economic system would cure all our ills. If, as seems probable, the failure is social, and not economic, we may well come by a bad fall before we see the light.

VI. OUR EDUCATIONAL SYSTEM

A major cause of our lack of cooperative capacity — or social discipline — may be our system of education. (In many other institutions a man would take his life in his hands if he were to criticize the system now in vogue. Here, that is not true, but, even if it were, I don't set a very high value on my life as an investment.) As you know, I am not a scholar or a teacher by profession; I'm a "scab." I look at the thing as an outsider and try to report what I see. Even during the period of fifty years which I can clearly remember, the system of education in this country has been transformed. The fields of knowledge have widened so vastly that teachers have become highly trained specialists, instead of men of wide experience of the world, engaged in the training of the young. This is a great loss for the young, because great teachers all teach the same subject — a way of life — and men cannot teach what they do not know.

What we see in our schools and colleges today are boys and girls "boiled in abstractions" from the age of six to twenty, or

twenty-six, under a fierce system of regimentation. Very little is left to chance; even games are taught like learned professions, and the opportunities to learn by experience, which were the main road to knowledge in my time, have been closed. It is amazing and staggering to see how truly ignorant "our highly educated" students are. Benjamin Franklin is said to have remarked that "Experience keeps a dear school." But the facts of today belie his words. Experience is the best and the cheapest school we have, but nobody goes to it. We are too "high-hat" about the whole business — plain experience is a humble creature.

But in a world where adequate coordination of effort is essential to survival, how shall we survive without our own first-hand experience? For this coordination which we seek is coordination of men and women, and the experience which we lack is experience of men and women — boys and girls — *in action*. We need more personal experience of reality, of which the world of nature is a good teacher, and we need more personal experience of how to live and work with people — and as compared with fifty years ago, in place of much more, we have much less. My own education was gained largely from experience. From schools and colleges I learned relatively little and I dread to see experience swept out of the door by the cold hand of abstraction. The effects of this fatal distortion are before our eyes in a people lacking the will to cooperate and the social discipline needed to preserve their institutions. For do not forget that the discipline of your own painful experience is the discipline that sticks.

In a hundred years — even in fifty years — our knowledge of the material world has been prodigiously enlarged. What was taught me in college is now completely discarded. A new world has been raised upon the ashes, and, as if to retrieve the balance, we seem to know less about ourselves and each other than we did then. We have conquered the world of nature and

it has conquered us — a strange phenomenon and one not unconnected with our system of education.

I have touched briefly on a few realities which I think it would be well to face. I have no pride of opinion about them. I may be quite wrong in my selection. *But these things I do believe:*

We are living in a world of violence.

In that world illusions are an expensive luxury. We cannot afford them.

Only those who can look into the future with relatively clear eyes are fit to lead. This points to young leaders. In a time like this, "the wisdom of age" is folly.

Some people — I, myself — have referred to the situations which face us as "ugly facts." We are wrong. These situations are what we make of them. No fact — no reality — is ugly unless we make it so. The ugly things are illusions — things that we cling to from habit, or prejudice or fear.

But do not mistake me. I am not suggesting violent or sudden change. Quite the opposite. It is illusions clung to stubbornly that produce revolution. Useful change must proceed rather slowly, guided by men with cool heads, clear eyes, and resolute hearts. You will remember Lowell's phrase in "The Washers of the Shroud":

The brave makes danger opportunity;
The waverer, paltering with the chance sublime,
Dwarfs it to peril: which shall Hesper be?

To me, it seems that we have before us a great opportunity — perhaps the greatest. My only fear is that we shall take counsel of our fears.

A PRE-VOLSTEAD ACT

With a Biographical Headnote*

SCENE: The Valley of the Connecticut River

PERRY CRAFTS, whose correspondence with the Secretary of State of Vermont on an important matter of public policy is printed below, was one of the most remarkable men I ever met. My acquaintance with him must have begun in 1908 or 1909, I think, at the time when I was employed by the Turners Falls Company in developing the water power at Turners Falls and the high-tension transmission system down the Connecticut Valley. Most of my knowledge of him prior to that time is merely hearsay, but I know that he was past middle age and that he had "failed to pass the doctors." If my memory serves me, they had found him to be suffering from what they called consumption — not consumption of whiskey, as one might gather from this correspondence, but what we now call tuberculosis of the lungs. The doctors' prognosis was extremely unfavorable. They gave him only a short time to live, and I understood that they recommended Florida as a convenient and enjoyable place in which to die. After a relatively brief residence there, however, as he didn't seem to be going to die, he very sensibly concluded that the

* While it is always wise to let people speak for themselves instead of attempting to do their talking for them, it has seemed to me in this case that some introduction was necessary. Perry Crafts cannot now speak for himself in any language that we can understand. — P. C.

doctors were wrong, as they commonly are. So he came back to the Connecticut Valley and applied to the engineers of the Turners Falls Company for a position as "right-of-way man." As the name implies, the business of a man holding this position for the company was to buy land or rights-of-way for its proposed system of high-tension transmission lines. At that time this work required a man of very rare genius because the electric power companies had no right to take land by eminent domain and, as high-tension rights-of-way must be not only continuous but practically straight, the difficulties of persuading several hundred independent farmers to sell such rights at any reasonable figure were almost insuperable. The company could have got along very well with an incompetent president — in fact it did — but with an incompetent man buying rights-of-way it would have been sunk. This disaster it was spared.

From 1909 until 1917 I was in intimate relations with this man, and he made a deep impression on me. He was a tall man, with a heavy stoop which made him seem of about middle height, very thin, lantern-jawed, gray-haired, and with a remarkable twinkle in his gray-blue eyes. I think I never heard him laugh, but I never talked to him for fifteen minutes without feeling his keen sense of humor. When he gave his mind to it, he could tell a story better than any man I ever knew, and he had a remarkable supply of them in his head. As he stood before you, his chin was commonly slightly raised so that the thinness of his neck and the prominence of his Adam's apple were very striking. It was the largest one that I ever saw and looked as if he had tried to swallow a plum and failed.

During the years when he worked for the Turners Falls Company, he made a reputation for himself throughout the Connecticut Valley as a buyer of land, and was of priceless value to me and to the other executives of the company.

But the characteristic which remains most vivid in my mind today was his burning enthusiasm for catching fish in which other people took very little interest. My interest, and that of "my boy friends" at that time, was mainly in catching trout, but I never heard Perry say a good word for a trout, while he would develop a perfectly unreasoning enthusiasm about pickerel and bull-pout. He never seemed to tire of standing on the ice through a whole winter's day, watching little red flags on the ends of sticks, in the hope that a pickerel would be careless enough to take his bait. The enthusiasm of the pickerel was rarely equal to his own. In fact, I have no clear recollection of ever seeing him catch a pickerel, but this did not dampen his enthusiasm. I shall never forget a hot day in July when he kidnapped me as soon as I arrived in Turners Falls and insisted on taking me to a mud-hole — miscalled a pond — up in the hills beyond Colerain, known by the poetical title of "Sadawga Pond." It took us two hours to get there and, when we did, there was practically no pond in sight. The alleged pond was nothing more than a bog, floating upon water of unknown depth. The technique of fishing in this place was, I think, peculiar to itself and consisted in chopping a hole in the bog, through which the hook, bait, and sinker were stealthily lowered. We did not catch any fish, although we stayed there until long after dark, but I have a vivid recollection of the mosquitoes, who certainly had the time of their young lives!

I was told that before I knew him Perry had been a deputy sheriff in one of the hill counties on the west side of the Connecticut River and that the breakdown of his health was due to the zeal with which he pursued marauders in that area. Whether this is true I do not know, but I do know that if he was half as keen in his pursuit of criminals as he was in his pursuit of bull-pout, these gentry must have been thankful when his career was cut short by failing health.

During all the years that I knew him he was a man under sentence of death, but he was always cheerful. I never heard him complain — not even of the mosquitoes at Sadawga Pond or the deacons and church wardens whose wives developed unexpected scruples about signing deeds of land which they had agreed in writing to convey to the Turners Falls Company.

Perry did a service for the Turners Falls Company in purchasing rights-of-way, and other lands, which I feel certain no other man could have done, and he did a personal service to me which I shall never forget in showing to me his rare understanding of human life and supplying me with a fund of New England stories, which, even after twenty years, are still as bright as when they were new.

After the high-tension transmission-line work in the vicinity of Turners Falls was finished, the company sent him up to St. Johnsbury, Vermont, on a wild-goose chase for which I was primarily responsible. In view of the fact that we caught nothing but geese, I think the less said about it the better, except that it accounts for his being a resident of that place at the date of the correspondence which follows.

STATE OF VERMONT

Office of Secretary of State

ESSEX JUNCTION, VT.
March 8, 1916

Perry F. Crafts
St. Johnsbury House
St. Johnsbury, Vt.

DEAR SIR:

I am in receipt of your application for an operator's license, and note in answer to the question as to what extent you use

intoxicating liquors, that you use a quart of whiskey every two weeks.

I am wondering if this is strictly true, since it would seem to me offhand that the use of this amount of whiskey continually for any considerable period of time would lead to trouble. I did not know but what there was some particular reason why you are using whiskey at this particular time, or that the amount stated by you might have been exaggerated slightly.

Will you kindly write me a little more in detail about the matter, and oblige.

Upon receipt of your reply, the matter will have my prompt attention.

Yours very truly,

GUY W. BAILEY

Secretary of State

ST. JOHNSBURY, VT.

March 13, 1916

Hon. Guy W. Bailey

Secretary of State

Essex Junction, Vt.

SIR:

In response to your request for further information as to my use of intoxicating liquors, I beg to state first, lest what I may hereinafter say be construed as an argument in favor of my being granted a license, that it is a matter of utter indifference to me whether I have a license or not, as while I had a license last year I probably did not drive a car 200 miles, and as it is not my intention to buy a car this year, and the interests which I represent will probably furnish a driver for the car I shall use in my business, there is very little probability of my doing any considerable amount of driving, so you can see

that it will be no hardship to me if you decide that it is your official duty to refuse me a license on account of habits of inebriety.

While I have no particular use for the Two Dollars now, if my habits should lead to the results that you seem to fear, it would at least buy another quart and thus prolong my miserable existence another two weeks. If, therefore, you should refund the \$2.00 with my application or make such other disposition of the application as you may consider it your official duty to do, it will be perfectly satisfactory to me.

It may be as you suggest, that I was like the deacon praying for rain and somewhat overdid it when I stated the amount of whiskey I use, but I still think it much nearer the truth than most of your applicants state; but assuming my statement to be literally true, if you will give the matter a little consideration, I think you will agree with me that a man can be a fairly respectable member of society and keep reasonably sober, even if he does drink a quart of good whiskey every fourteen days.

As you perhaps know, the glasses in which whiskey is served in the so-called "better class" of booze bazaars hold two and one half ounces, while in all the gilded palaces of sin that I have ever visited in Vermont, where they dispense the third-rail brand of rectified ruin, they use three-ounce glasses or larger.

Now, if I should take my daily allowance all in one slug I would only get about 2.28 ounces, or practically one-fourth ounce less than I would be entitled to over the bar, and please note that my statement says *good* whiskey, so of course I should be confined to the smaller size of glass, but as no gentleman ever fills his glass to the top, my statement figures out about right for a man that really wants a drink. In fact, for an off-hand guess, it comes out much better than I could have expected; yet, I should not practice, or recommend, taking that

amount of booze when about to drive a car, or for that matter when about to do any other kind of business; but believe that even if I had a slug of the above dimensions inside my hide I could keep a car inside the fences, and would only see one road ahead of me, probably would not mistake the headlights of another car for two cars and attempt to drive between them. However, I am not very sure about this, never having tried it.

You say that you think the use of this amount of whiskey for any considerable time will lead to trouble. That, as I understand it, is where whiskey usually leads to; but as I have only been using it for thirty or thirty-five years I am unable to say what will happen if I use it for any considerable length of time.

Possibly you may think the habit will grow on me, and that in my old age I may become a horrible example of the voluntary use of intoxicating liquor. If so, kindly note that I am in my 56th year, and consequently at a time of life when one's habits are pretty well formed, and I anticipate that any material change in my habits hereafter will be along the lines of retrenchment, owing to my inability to participate in the pleasures of life as I have in the past on account of the frailties incident to old age, so it seems to me that there need be no worry on that score.

Perhaps one reason for the statement under consideration is my thorough disgust with the perjury that has been committed before me as a Justice of the Peace in Massachusetts by applicants for drivers' licenses. In fact, while I have administered the oath to hundreds of applicants for such licenses, I have no distinct recollection of a single one that stated the truth in every respect; and I believe it can be successfully maintained that, barring applications for Government Pensions, there is more perjury committed by persons applying for drivers' licenses than in all other matters com-

bined. And I should think it would be rather refreshing to you to have an applicant state that he uses a reasonable amount of stimulant, rather than that same infernal old lie, "I use it *very moderately*," when it is a matter of common knowledge that lots of them get stewed to the eyebrows every chance they get, and you and I both know that there are plenty of men driving machines in this, and every other, state that instead of drinking a quart of good whiskey in two weeks, drink a quart of mighty poor whiskey in one day. In fact, I now have in mind two of your licensees that have taken the "jag cure" in the past year, and it is perfectly safe to bet that both of them swore to a statement that they use intoxicants "very moderately."

From the fact that you felt that I ought to be given a chance to explain my deplorable condition, I judge that your Mr. Calderwood and the St. Johnsbury Police Department sent you a rather unfavorable report as to my reputation for sobriety and morality. I rather regret this as we all like to have the respect of our neighbors, not that I care particularly for Mr. Calderwood's opinion one way or the other, but it is unfortunate indeed if the police consider me an undesirable citizen.

Thanking you for the opportunity to explain my position in this matter, and trusting that I have made it quite clear to you, and that you will consider this communication in the same spirit that it is written, I am,

Respectfully yours,

PERRY F. CRAFTS

STATE OF VERMONT
Office of Secretary of State

ESSEX JUNCTION, VT.
March 14, 1916

Perry F. Crafts
St. Johnsbury, Vt.

DEAR SIR:

I acknowledge receipt of your letter of the 13th and wish to thank you very much for the contents thereof.

I assume, however, that you have already received your license, since I wrote to your good friend Alexander Dunnett, and immediately upon receipt of his letter, I issued the license.

I regret that you should have been bothered so much about this matter, and only wish that other applicants would be as truthful and fair as you have been.

Again thanking you for your courtesy, I am,

Yours very truly,

(Signed) GUY W. BAILEY

Secretary of State

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